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ANNALS, APR 95

DESCRIPTIVE &
CATALOGUE . . .

OF

GROWN
and FOR SALE
AT
THE

Fruit and Ornamental Trees,
Vines, Plants, Roses, *
Shrubs, Etc., Etc. * *

SARGOXIE
NURSERIES.

SARGOXIE,
Jasper County,
MISSOURI.

JAMES B. WILD.
HENRY N. WILD.
FRANK H. WILD.

JAS. B. WILD & BROS.
PROPRIETORS.

CONNECTED BY TELEPHONE WITH
TELEGRAPH, EXPRESS AND FREIGHT OFFICES.

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ESTABLISHED 1875. o o o o o

DESCRIPTIVE CATALOGUE

—OF THE—

Sarcoxie Nurseries

700 Acres, ^{OF WHICH} 460 Acres are in Nursery Stock.

JAMES B. WILD & BROS.,

PROPRIETORS,

SARCOXIE, - - - MISSOURI.

DESCRIBING the habits of growth, fruit and seasons of ripening of all the older and well known varieties of Fruit Trees, Vines and Plants, as well as the choicest and most desirable of the newer varieties; also nut bearing trees, ornamental and forest trees, evergreens, hardy ornamental and flowering shrubs, vines and plants, both old and new, all as grown at the Sarcoxie Nurseries.

Also contains valuable tables for the orchardist and tree planter, besides some useful suggestions to purchasers concerning the planting and care of trees.

Valuable Tables. * *

DISTANCES FOR PLANTING.

Apples	20 to 30 feet apart each way.
Pears, standard.....	15 to 20 feet apart each way.
Pears, dwarf.....	10 to 15 feet apart each way.
Peach.....	15 to 20 feet apart each way.
Plums.....	15 to 20 feet apart each way.
Quinces.....	12 to 16 feet apart each way.
Grapes.....	8 to 10 feet apart each way.
Mulberries, Pecans, Walnuts, Chestnuts.....	25 to 30 feet apart each way.
Strawberry Plants for garden culture.....	1½ x 2½ feet.
Strawberry Plants for field culture.....	1 x 3 feet.
Strawberry Plants for berry culture, 10,890 plants pr acre,	1 x 4 feet.

NUMBER OF TREES AND PLANTS ON AN ACRE AT VARIOUS DISTANCES.

3 in. x 3 in . . . 696,960	4 ft. x 4 ft. . 2,722	13 ft. x 13 ft. . . 257
6 in. x 4 in . . 392,040	4½ ft. x 4½ ft. . 2,151	14 ft. x 14 ft. . . 222
6 in. x 6 in . . 174,240	5 ft. x 1 ft. . 8,712	15 ft. x 15 ft. . . 193
9 in. x 9 in . . . 77,440	5 ft. x 2 ft. . 4,356	16 ft. x 16 ft. . . 170
1 ft. x 1 ft. . . 43,560	5 ft. x 3 ft. . 2,904	16½ ft. x 16½ ft. . . 160
1½ ft. x 1½ ft. . . 19,360	5 ft. x 4 ft. . 2,178	17 ft. x 17 ft. . . 150
2 ft. x 1 ft. . . 21,780	5 ft. x 5 ft. . 1,742	18 ft. x 18 ft. . . 134
2 ft. x 2 ft. . . 10,890	5½ ft. x 5½ ft. . 1,417	19 ft. x 19 ft. . . 120
2½ ft. x 2½ ft. . . 6,960	6 ft. x 6 ft. . 1,210	20 ft. x 20 ft. . . 108
3 ft. x 1 ft. . . 14,520	6½ ft. x 6½ ft. . 1,031	25 ft. x 25 ft. . . . 69
3 ft. x 2 ft. . . 7,260	7 ft. x 7 ft. . . 888	30 ft. x 30 ft. . . . 48
3 ft. x 3 ft. . . 4,840	8 ft. x 8 ft. . . 680	33 ft. x 33 ft. . . . 40
3½ ft. x 3½ ft. . . 3,555	9 ft. x 9 ft. . . 537	40 ft. x 40 ft. . . . 27
4 ft. x 1 ft. . . 10,890	10 ft. x 10 ft. . . 435	50 ft. x 50 ft. . . . 17
4 ft. x 2 ft. . . 5,445	11 ft. x 11 ft. . . 360	60 ft. x 60 ft. . . . 12
4 ft. x 3 ft. . . 3,630	12 ft. x 12 ft. . . 302	66 ft. x 66 ft. . . . 10

To ascertain the number of trees or plants required for an acre: Multiply together the distance that the trees are to be set apart each way and divide this into 43,560 (the number of square feet in an acre), which will give the number required.

PLAN OF ORCHARDS.

A	D	A	D	A	D	A	D	A	D	A
D	S	D	S	D	S	D	S	D	S	D
A	D	A	D	A	D	A	D	A	D	A

A—Apple. S—Standard Pear. D—Dwarf Pear, Plum or Peach.

One acre will contain, at 30 feet apart, 48 Apple Trees, 35 Standard Pears, 82 Dwarf Pears, Peach, etc. The advantage of planting fruit trees on the above plan will be readily seen. By setting the apple trees 30 feet apart and filling in with smaller growing trees, the standard pear occupying the space between the four apple trees, and being an upright pyramidal grower, they do not interfere with each other.

Introductory.

In presenting to the consideration of our friends and the public a short and condensed **DESCRIPTIVE CATALOGUE OF THE SARCOXIE (MO.) NURSERIES**, we desire to return our sincere thanks for the liberal patronage bestowed upon us in the past, and to again express our determination to merit a continuance and an increase of the same by our strict attention to business, and by putting forth our best endeavors to please our customers.

LOCATION.—Our nurseries are situated on the western slope of the Ozark mountain range, at an elevation of 1,350 feet above the sea (about 900 feet above St. Louis). Having a fine climate, a varied soil upon which to grow the different classes of trees and plants insures perfect growth of top and root, well ripened up for transplanting in advance of the more northern or southern nurseries situated within lower altitude, and admitting of very early shipments, if desired.

Beginning in the year 1875, we have since then devoted our entire attention to the growing of **NURSERY PRODUCTS**, relying solely on sales made through our Wholesale and Retail Price-Lists, **NO AGENTS** being employed to represent us, but instead, **SELLING DIRECT TO PURCHASERS**, a system growing and gaining favor with each succeeding year.

Our Method of selling has incurred much displeasure among those Nurserymen who rely on Agents to sell and deliver their stock. Numerous letters are sent us yearly from our customers and others, encouraging us in this undertaking. At the same time letters reach us relating deceptive practices indulged in by agents in order to sell varieties we do not grow, or have discarded, which goes to show that we are pursuing the right course.

• **KEEPING ABREAST OF THE TIMES.**—Our **COOL STORAGE BRICK PACKING HOUSE**, (frost-proof) 60x120 feet, having a capacity for convenience in storing trees and plants, is unexcelled. A geared wind mill and several thousand feet of water pipe supply the Packing House and trench grounds with an abundance of water, a great advantage in packing trees and plants.

ILLUSTRATIONS.—The Illustrations herein contained are taken from photos,—from actual objects—and fully represent our Packing House—exterior and interior—Evergreen sheds, etc.

OUR ASSORTMENT of *Fruit Trees for private or commercial orchard planting* in both new and old varieties, Ornamentals, Deciduous and Evergreens for Parks, Street and Home planting, with Shrubs, Roses, Vines, etc., can not be surpassed anywhere in this country.

TEST ORCHARDS.—Our orchards in bearing and the testing of all new fruits as quickly as present methods admit, besides planting in experimental orchards as well, enables us to determine the merits of new varieties ahead of the usual time; discarding such as are deemed unworthy of further dissemination, and propagating more extensively such as have merit enough to warrant continuance. Thus we are enabled to fill orders for inexperienced planters better than they could select of their

own accord. However, we will say that as a rule, please yourself. It is far better, in making a selection, to first consult some one who has a planting in the vicinity. Ascertain if there are varieties that have done remarkably well with him, and go no further in search of varieties, unless you are able to experiment with other varieties.

And now a word as to what time to procure trees to plant and when to plant them. Early Spring is generally best, although Fall planting, if well and carefully done, succeeds well. But, says one, "Don't set out trees in the Fall; that is an old foggy notion; you are not gaining time, you will only have your labor for your pains." Perhaps the above assertion is too strong. Many have set trees and vines in the Fall and have had equally as good success as when planted in the Spring. In some respects Fall planting is preferred. The advantages gained by planting in the Fall allow the tree or plant to have sufficient time before the appearance of winter to become measureably acclimated, and the roots to obtain a good hold in the soil, and if properly mulched they will come out in the Spring in good condition, ready to grow long before the ground is in a fit condition to work. They also gain the advantage of the early Spring rains, which are of inestimable value. Better selections in trees and plants are generally to be obtained at the Nurseries in the Fall than in the Spring. Still, as a matter of convenience, some prefer Spring and others Fall planting. We would say, procure your trees and plants in the Fall, and if your ground is in good order, plant all trees not subject to injury by hard freezing. More trees are lost annually from very late and careless Spring setting, followed by non-cultivation, than all other causes. When you get trees or plants, care for them well for a few years if you want them to do anything for you; keep the ground loose and moist after planting; visit them often; keep injurious animals or insects away from them.

VISITORS ARE WELCOME.—Our grounds are open and free to all visitors, but we much prefer Sunday left to ourselves.

WEIGHT OF TREES PACKED can only be given approximate: 1,000 trees packed for shipment, ordinary weight—1 to 2 feet, 150 to 200 lbs.; 2 to 3 feet, 300 to 400 lbs.; 3 to 4 feet, 500 to 650 lbs.; 4 to 5 feet, 900 to 1,200 lbs.; 5 to 7 feet, 1,500 to 2,000 lbs.

RAILROAD GUARANTEE.—With our present arrangements our guarantee of freight is accepted by all Railroads and Transportation companies forwarding our goods to their destination.

The advantage of paying at destination will be appreciated by all who have experienced the disadvantage of pre-payment in order to start their goods, as well as the uncertainty of amount or length of time required in obtaining rates.

A CAR LOAD will hold, when packed in bulk in box cars, from 10 to 12 thousand 5 to 6 foot trees, and from 14 to 16 thousand 4 to 5 foot trees, and from one-fourth to one-half more when boxed. Coal or flat cars boxed up will hold double the quantity of ordinary cars. Cost of boxing up coal cars is about \$30.00 per car.

Directions to Correspondents.

Our customers will confer a favor upon us, and also hasten the shipment of their orders, by conforming to the following directions when not in possession of our regular priced list; otherwise observe Terms and Conditions of priced list before ordering.

1. NAME AND ADDRESS.—Please write your *Name, Post-Office, County and State* as distinctly as possible, especially the name; also the *nearest Freight or Express office*, or, if on a stage route, send us special directions, giving us the name of the Express Company delivering goods.

2.—All orders should be sent as early as possible, that there may be plenty of time for shipping long distances, when early preparation is also necessary. Customers ordering early consult their own interest in getting first pick.

3. We endeavor to execute all orders promptly and, as nearly as possible, in rotation as received, condition of weather and matters unavoidable being the only cause for delayed rotation.

4. All orders should be written on a separate sheet and not mixed up with the body of the letter. This will prevent mistakes that usually occur in such instances, and facilitates execution of orders materially.

5. Where particular varieties, age and size of trees, etc., are ordered, it should be stated whether and to what extent substitution will be allowed, in case the order can not be filled to the letter. Where no instructions in this respect accompany the order, we shall feel at liberty to substitute other varieties of the same class or species to conform as nearly as possible; keeping in view season rather than color, quality rather than size, height rather than age. If no substitution is desired, write "No Substitution," and we will fill only as far as we have the stock.

6. When the selection is left to us we shall endeavor to send only such sorts as are acknowledged to give general satisfaction. However, customers should state what proportion of early, medium and late fruit is wanted. Please remember this.

7. All trees and plants are carefully dug, tied in bunches, labeled, and packed in the best manner, and are delivered to railway station here free of cartage. In so delivering our responsibility ceases.

GUARANTEE OF GENUINENESS.

While we exercise the greatest diligence and care to have all of our Trees, etc., true to label, and hold ourselves in readiness, on proper proof, to replace all Trees, etc., that may prove untrue to label, free of charge, or refund the amount paid, it is mutually understood and agreed to, between the purchaser and ourselves, that our guarantee of genuineness shall in no case make us liable for any sum greater than that originally received for said trees, etc., that prove untrue.

JAMES B. WILD,
HENRY N. WILD,
FRANK H. WILD, }

JAMES B. WILD & BROS.,
Sarcoxie, Jasper Co., Mo.

Fruit Department.

We do not guarantee Fruit Trees to live.

Our responsibility ceases after they are received for in good order by the forwarders.

SO GREAT is the annual loss of trees, owing to their roots being exposed to the air unnecessarily, that we once more urge the necessity of keeping the roots protected as much as possible while they are out of the ground. The exposing of the roots of some kinds of trees to a severe drying wind or a hot sun for an hour is positive injury to them. Particularly is this the case with evergreens, as their sap is of a resinous nature, which, when it becomes dried, cannot be restored to its normal condition, either by soaking in water or by any other means.

Trees will flourish in almost any good farm soil. The kind of land for trees is of less importance than its proper preparation. It should be well drained, either naturally or artificially; and thoroughly worked before planting. If you would have best results, prepare the ground carefully.

If you are not ready to plant trees immediately upon their arrival, they should be unpacked at once and heeled in; that is, place them in an upright position, or nearly so, and cover the roots thoroughly with well pulverized soil; press this securely around them and they can remain here a long time without injury. Look well that no openings appear.

Do not unpack trees while it is freezing. If they are received in a frozen condition, or in freezing weather, keep them in a cool situation, but free from frost, until they are perfectly thawed. If deciduous trees are miscarried or delayed so as to become dried or shriveled, bury the whole tree in the ground and let it remain six or eight days before planting. The puddling of the roots of all trees and plants in a thin mud before planting is a most excellent practice which ought to be more generally adopted.

All fruit and shade trees should be trimmed when they are planted. Cut back the previous year's growth one-half to two-thirds its length at least, and frequently it is best to remove even more than this in standard trees, aiming to form rounded or low pyramidal heads. After pruning should be done with a view of balancing the trees and keep them low. It is more difficult to pick fruit from high trees, and besides, the fruit that falls is not as much injured.

In planting trees, always dig a hole large enough to receive the root without twisting or crowding. After placing the tree in the hole, about as deep as it had stood in the nursery, fill in around it with good soil, being careful to keep the roots in their natural position and press the ground firmly about them. After filling the hole, it is of great advantage to cover the ground for two or three feet around the tree with a mulch of long manure; or use a subsoil instead. This will keep the roots from drying out in summer, and the mulch will prevent the ground from freezing and thawing. Upon the approach of winter, remove the mulch a few inches from the stem of the trees to prevent mice from girdling them.

The ground in young orchards should be kept cultivated, and the most practical mode of doing this is to raise potatoes, cabbage, strawberries, raspberries or some other hoed crop, that the trees may be well worked until they come into bearing. If corn is raised, do not plant within five or six feet of the trees.

A coat of manure, bone dust or wood ashes should be applied every two years. In applying fertilizers, do not simply pile them around the stem of the tree, but spread them around as far from the trunk as the limbs extend.

To protect from the ravages of mice or rabbits, wrap the trees with roofing felt or wood tree wrappers (veneer). Search should be made every autumn or early spring for borers, at or beneath the surface of the ground, cutting them out and destroying them wherever found.

NOTE.—Time of Ripening.—A “—” preceding the month signifies 1st to 15th; if both preceding and following the month signifies middle, also first to last on varieties continuing long in season, unless otherwise noted; if following the month, signifies 15th to 30th.

APPLES—Summer Varieties.

American Summer Pearmain. Medium to large, irregular in shape but generally conical, covered with streaks and dots of red, sub-acid, tender, quality best, distinguished by fruit bursting when fallen when fully ripe, ripens here first half of—August. Tree a slow compact grower; wants rich soil and good cultivation.

Astrachan Red, (Red Astrachan.) Rather large, deep crimson with pale white bloom, juicy, acid flavor. Tree hardy, good grower, and productive—July.

Benoni. Medium, roundish, deep red on rich yellow, flesh yellow tender, sub-acid, good to best. Tree erect habit, good bearer, ripens after Red June.

Carolina Red June, (Red June.) Medium, oblong, very red, flesh white, tender, sub-acid, good flavor, ripens early and continues four weeks in June and July. Tree erect, bears abundant, often produces a second crop but of no value except to show the variety out of season.

Carolina Striped June. Same as the foregoing except that the fruit is striped.

Chenango Strawberry, (Sherwood's Favorite, Frank, Buckley, Jackson.) Rather large, oblong conic, slightly ribbed, striped and splashed with bright crimson on whitish yellow ground, flesh white, very tender, with a pleasant mild sub-acid flavor. An apple so handsome as to take well on

APPLES.—Summer Varieties Continued.
any market. Tree vigorous, light colored shoots, a good bearer—September.

Cooper's Early White. Medium to large, white, tender, sprightly, sub-acid. Tree a stocky thrifty grower, bears very young, often on trees in nursery rows at three years—August.

Cole's Quince. Large oblate, conical, ribbed, mellow when ripe, quince flavor, cooks well. Tree spreading growth, productive—August.

Duchesse of Oldenburg. Russian, large roundish, striped with red and yellow, flesh whitish, juicy, acid. Tree a vigorous grower and very hardy, an early and abundant bearer. Indispensable in the north and equally good in the south—August.

Early Colton. Medium, nearly round, color yellowish white with a slight tint of carmine on exposed specimens. Tree a fair upright grower and said to be entirely hardy, ripens with Red Astrachan—July.

Early Harvest. (Yellow Harvest.) Medium to large, pale yellow or straw color, flesh white, tender, juicy, crisp, fine rich sub-acid flavor. Tree moderately vigorous and productive. The best Fourth of July apple.

Early May. Medium or below, pale yellow, for early market and for cooking. Tree an upright but moderate grower, June—

Early Pennock. Large, skin light yellow splashed mottled and shaded with light red, flesh whitish, coarse, pleasant sub-acid flavor. Tree hardy and productive—August—

Early Strawberry. Small, red, tender, fine flavor, good bearer. Tree erect, ripens latter part of July—

Fanny. Large, deep rich crimson red, flesh white, a little stained next the skin, tender, juicy, pleasant sub-acid—July.

Golden Sweet. Above medium size, pale yellow, flesh tender, sweet, rich and excellent, valuable. Tree vigorous, spreading, hardy and productive, July—

Horse, Yellow. (Hoss.) Large greenish yellow, fine for cooking and drying. Tree an upright grower, popular old sort, August—

Julian. Medium size, crimson red apple, Southern origin, very high flavor and popular where known. Tree upright, spreading, productive, August—

Keswick Codlin. Large, rather light yellow when ripe, ribbed, acid, a cooking apple fit for use before fully grown. Tree vigorous, July—August.

Regans Yellow. (Local-Tenn.) A beautiful yellow apple, larger and finer than Horse, Yellow, July—

Red Bietigheimer. German variety. Fruit large to very large, roundish conical, skin pale cream colored ground mostly covered with purplish crimson, flesh white, firm, sub-acid, brisk pleasant flavor. Tree a free stocky grower, an abundant but not an early bearer. One of the largest and handsomest summer apples, worthy of extensive cultivation, August—September.

Striped July. (Wilson Co. Tenn.) Medium to large, bright red on yellow ground, flesh yellowish, rich, sub-acid, very firm and high flavored. Tree a fine grower, —July.

Sweet Bough. Large, conical, pale greenish yellow, skin smooth, flesh white, very tender, rich, sweet flavor. Tree moderate grower and hardihood, —July—

Sweet June. (High Top.) Medium size, round, yellowish flesh, very sweet and tender eating apple, fair for cooking. Tree very upright, June—July.

Sops of Wine. (Hominy.) Large, conical, dark crimson on yellow ground, flesh tender, vinous, with a spicy aroma. Handsome fruit, often stained. Tree a free grower, —August—

Summer Queen. Large, slightly conical, deep yellow, blotched and striped with red, flesh yellow and tender, with an acid, aromatic flavor. Tree a good grower with light colored wood, —August.

Summer Rose. Scarcely medium size, roundish, smooth, rich waxen yellow streaked with a little red on sunny side, very good to best. Tree a moderate grower, July—August.

Tetofsky. A Russian apple which proves profitable for market, comes into bearing extremely early, usually when only 6 to 7 feet high, fruit round and smooth, yellow beautifully striped with red, flesh white, juicy, pleasant acid, aromatic. Tree very stiff grower, would take the place of a dwarf were it better known and would not be a disappointment, June—July.

William's Favorite. Medium, roundish, flesh yellowish white, very mild and agreeable, bears abundantly. Tree a moderate grower.

APPLES.—Summer Varieties Continued.

Yellow Transparent, (Russian Transparent.) New, fruit of good size, skin clear and glossy white, changing to a beautiful waxy yellow when fully ripe, ripens ahead of Early Harvest, just the variety to commence sending to Northern markets when apples command big prices. Tree bears extremely early; on a tree seven feet high measuring 1 1-4 inches we counted 38 specimens and on another tree 6 feet high and 7-8 inches in diameter 9 specimens that would mature.

APPLES.

Autumn (Fall) Varieties.

Alexander, (Emperor, Russian.) Large, crimson striped, juicy, quality good. Tree very hardy, --October.

Autumn Strawberry. Medium, streaked, tender, juicy, fine. Tree vigorous and productive, desirable, September—October.

Colvert, (Pound Pippin.) Large, flat, striped, fine for cooking and market. Tree hardy strong grower, productive, —October.

Carter's Blue, (Lady Fitzpatrick.) Very large, green, overspread with a dull brownish red and a thick blue bloom, crisp, sugary, with a rich aroma. Tree a vigorous grower, upright, September—

Bailey Sweet, (Patterson.) Large, irregular, ribbed, deep red, striped, very showy, often entered at the fairs for the most showy apple, flesh tender, not very juicy but sufficient for a rich sweet apple. Tree a moderate grower in nursery, with but few branches, makes a better tree in orchard, bears well, September—October.

Belmont, (Waxen, Gate, Mamma Beam.) Medium to large, roundish conical, often a little flat on lower branches, color bright clear yellow with vermilion cheek and dots. Tree vigorous, bears well, October.

Big Romanite, (Pelican, Pennock.) Large, roundish, inclines to oblique shape, deep dull red with large dots, coarse, of little value since other and better varieties are taking its place. Tree spreading, —October—

Bumcombe, (Meigs, Red Fall Pippin, Lady Finger, Etc.) Large, oblong, greenish yellow, nearly covered with deep carmine, tender, juicy, well flavored. Tree upright grower and prolific bearer, an excellent fruit, should not be confounded with Kentucky

Streak or Bradford's Best, October—December.

Bostic Queen, (High Lo Jack of some.) Larger than Fall Queen and more highly colored. Tree similar to Fall Queen but more vigorous, September—October.

Buckingham, (Fall Queen.) Large, flat, inclining to conic, color greenish yellow, mostly with bright red cheek and darker stripes, flesh yellowish, sub-acid, rich, juicy, very good. Tree an upright grower, September—

Fall Pippin. Very large, greenish color becoming yellow when ripe, flesh yellow becoming tender, rich, aromatic, excellent. Tree irregular but good orchard tree, long lived, September—October.

Fameuse, [Snow Apple.] Medium to large, a handsome deep crimson, white fleshed apple of high flavor and of best quality. Tree hardy of rather spreading habit, very productive, October—

Flory's Bellflower, [Sheep Shire.] Medium to large, roundish, conical, rich yellow with small patches of russet and minute russet dots, flesh yellowish, tender, moderately juicy, rather acid if gathered early, good. Tree an upright grower, prolific bearer, September—October.

Gloria Mundi, [Monstrous Pippin, Ox Apple, Etc.] One of the largest apples, roundish, flattened at the ends, ribbed, smooth, greenish white, a coarse unproductive variety, for show only. Tree upright, --October.

Gravenstein. Approaching to large, roundish, slightly oblate, surface yellow, somewhat ribbed, beautifully striped with red, crisp, juicy, sprightly and of high flavor, one of the best and most profitable of the season. Tree hardy, good grower, September--

Grimes Golden. Medium to large, roundish oblate, slightly conical, large specimens oblong, skin yellow with russet dots, flesh yellowish white with a mild sub-acid, agreeable, good to best flavor. Tree a good grower and early annual bearer, no orchardist should omit this variety, October--December.

Haas, [Gros Pomier, Maryland Queen, Fall Queen erroneously.] Origin St. Louis County, Mo., large to very large, oblate inclined to conical, somewhat ribbed, skin pale greenish yellow shaded and striped with red, flesh fine white, sometimes stained, tender, juicy, sub-acid, good. Tree vigorous and upright, sparsely branched, should

APPLES.—Autumn Varieties Continued.

be headed low and kept from becoming tall, when it will prove an early and abundant bearer, hardy in Colorado and the west generally, September—October.

Hubbardston, [Nonésuch.] Large, yellow, striped, deep dull red and spots of brownish red on exposed surface, having a bad color it is however made up in a very rich sub-acid, almost sweet flavor. Tree a good grower, ashy colored shoots, October—Nov.

Isam Sweet. A seedling of Bailey Sweet, fruit large, fine red, more oblong than its parent, of much finer grain, more juicy, quality best. Tree branches freely, is hardy and productive, October—November.

Jonathan, [Philip Rick.] Medium size unless thinned on tree when it becomes a fair size, form roundish conical, skin thin and smooth, the ground clear light yellow, nearly covered with lively red stripes and deepening into brilliant or dark red in the sun, flesh white, rarely a little pinkish, very tender and juicy, mild sprightly vinous flavor, having such beautiful color it very often divides honors in the show room; as a desert apple it is rarely equalled. Tree slender and spreading, similar to E. Spitzenburg, October—December.

Jersey Sweet. Medium size, striped red and green, tender, juicy and sweet, September—

Longfield, [Langerfeldskoe.] This variety will be especially popular in central Iowa on account of early and continued bearing of heavy crops of finely colored even sized and good fruit. If picked early in central Iowa it keeps as well as Grimes' Golden or Jonathan.

Lowell, or Orange, [Greasy Pippin.] Large, oblong, skin oily, pale yellow, brisk, juicy, acid flavor. Tree a vigorous grower and good bearer, —September.

Maiden Blush. Generally known, rather large, pale yellow with red cheek, beautiful, valuable for market, one of the best if not the best drying apple, makes a white product. Tree a fine grower, hardy and productive, August—September.

Moumouth Pippin, [Red Cheek] Large, color yellow with fine red cheek, russet dots, juicy, fine sub-acid, very good.

Magnum Bonum. Medium to large, oblate, yellow mostly shaded with deep crimson and indistinct stripes and splashes of dark red, flesh white often stained next the skin, firm, tender, juicy, rich, mild, sub-acid. Tree upright, spreading, early bearer, October—December.

Mother. Fruit medium, form roundish, slightly conical, color yellow, almost entirely overspread with light, clear, rich red, splashed and marked with many deeper shades, many minute light dots, flesh yellow, tender, juicy, rich, aromatic sub-acid, best quality. Tree slow grower, —September—

Mammoth Pippin of Arkansas, [Not the Gloria Mundi.] Large to very large, specimens often larger than Shannon, and more productive, not as lively a color but good enough for a yellow apple of its size. Have seen this apple the last four years at the Arkansas fruit shows and are well impressed with it, would plant it freely—October.

Ohio Nonpareil. Fruit medium to large, roundish oblate, yellow, shaded, marbled and splashed with two shades of red, light gray dots, flesh yellowish white, fine grained, tender, juicy, rich, sub-acid, very good. Tree a stocky open grower, fruit scattering over the tree causes the fruit to be of even size, not profitable as a market sort, Oct.

Pa. Red Streak, [Wine. Hays.] Fruit large, form regular, nearly round, a little flattened at the ends, obscurely striped and mottled with red on yellow ground, flesh yellowish white, juicy, crisp, rich sub-acid flavor, one of the best, and is also manifest by its appearance in the show room and at the fairs. Big Romanite and Smith's Cider are often entered under the above name, the former having very oblique shape and the latter elongated. Tree thrifty grower with narrow folded curved leaves, October—November.

Plumb's Cider. Large, oval, striped, tender, juicy, sub-acid. Tree very hardy, vigorous and productive, of most value north.

Porter. Large, oblong, ovate conical, bright yellow with dull blush in the sun, flesh tender, rich sub-acid, fine. Tree slow growing, spreading, productive, —September— There is a Southern Porter ripens a month and a half later.

Pound Sweet. Very large, roundish, ribbed, mostly towards the stalk, pale green, flesh white, sweet tender, not juicy, good, September—October.

APPLES.—Autumn Varieties Continued.

Perry Russet. Medium, roundish conical, lightly russeted on pale yellow, firm, brisk sub-acid, good. Tree good grower, October--November.

Rambo. Size medium, oblate, smooth, yellowish white in the shade, streaked and marbled with pale yellow and red in the sun, and speckled with large rough dots, flesh greenish white, very tender, rich, mild, sub-acid, very good. Tree vigorous, tender in some localities, --October--

Ramsdell Sweet, [English Sweet.] Fruit medium or above medium size, oblong, regularly shaped, obscurely conical, color dark rich red, with a blue bloom, flesh yellowish, tender, sweet, good, second quality. Tree vigorous, upright, productive, early bearer, October--November.

Rhode Island Greening. Large, roundish oblate, green becoming greenish yellow when ripe, dull brown bluish to the sun, flesh yellow, rich yellow in exposed specimens, whitish yellow in shaded, tender, juicy, rich, rather acid flavor. Tree in nursery more or less crooked, becomes a good orchard tree, heavy bearer everywhere, in north and east it is their favorite winter apple, --October--

Roman Stem. Uniformly medium size, round, oblong, greenish yellow with russet bronze in the sun, flesh firm, rich, juicy, sub-acid, best, dessert apple. Tree slender grower, great bearer, November.

Shannon Pippin, of Arkansas. Large to very large, often weighing 20 ounces, form roundish, oblate, color a rich golden yellow, flesh pale yellow, very mild, sub-acid, sprightly, pleasant aroma, the most showy apple of its season, --October--November. Tree in habit of growth much like the R. I. Greening; both tree and fruit are oftentimes mistaken for one another but closer observation will readily distinguish the one from the other. Shannon trees are always forked in branches, often appearing as in whorls on young trees, and are shy bearers while the R. I. Greening bears abundantly.

St. Lawrence. Large, round, streaked red and greenish yellow, moderate quality. Tree hardy in Canada, --Oct.

Stump. From near Rochester, N. Y. Fruit small to medium size, conical, skin yellow, striped with light red, flesh firm, crisp, juicy, tender, spright-

ly sub-acid. Tree a handsome stocky grower, prolific bearer, September--

Talman Sweet. Medium or rather large, roundish oblate, slightly conical, color clear light yellow with a clear brownish line from stem to apex, flesh white, firm, rich, very sweet, an excellent variety to make apple butter of. Tree vigorous, hardy and productive, October--

Tulpenhocken, [Fallwater. Pound, &c.] Very large, round to conic, greenish partly covered with dull red and grayish stripes, large white dots, very mild sub-acid, almost sweet when well grown, very good for a coarse looking apple. Tree heavy stiff grower, productive, October--November.

Twenty Ounce, [Cayuga Red.] Very large and showy, greenish yellow, boldly splashed and marbled with stripes of red, fine market sort, --October--

Utter's Red. Large, round, whitish and striped, very beautiful and excellent, sub-acid. Tree vigorous, hardy, productive, requires dry soil, of great value north, September--October.

Vandevere Pippin. Large, flat, striped and blotched with light red on yellow, flesh greenish yellow, firm, crisp, brisk sub-acid, culinary, November.

Wagener. Medium to large size, deep red in the sun, high flavor. Tree a slow grower, --November--

Wealthy. Originated near St. Paul, Minn. Fruit medium, roundish, some specimens cylindrical, skin smooth, whitish yellow, shaded with deep rich crimson, flesh white, fine grained, tender, juicy, pleasant sub-acid. Tree hardy, a fine grower, very productive even on young trees, September--October.

EARLY WINTER APPLES.

See Also Late Winter list.

American Golden Pippin, [New York Greening Ribbed Pippin.] Large roundish oblate, inclined to conic, obscurely ribbed, color yellow, sometimes a brownish blush in the sun, thinly speckled with gray dots, often slightly netted with thin russet, flesh yellowish, breaking, juicy, rather coarse, rich, aromatic, sub-acid, core rather large. Tree strong, spreading. The fruit is often mistaken for R. I. Greening as shown by some of the leading Horticultural societies and fairs, --December.

APPLES.—Early Winter Varieties Continued.

✓ **American Golden Russet.** [Bulloch's Pippin, Sheepnose.] Rather small, conical, light yellow, sprinkled and sometimes overspread with thin russet, flesh yellowish white, very fine grained, tender, with a mild, sub-acid flavor. Tree erect, December.

Baldwin. Rather large, roundish, with more or less of a rounded taper towards the apex, shaded and striped with yellowish red and crimson on yellow ground, flesh yellowish white, with a rich sub-acid flavor, a favorite eastern variety. Tree a good grower, --December.

✓ **Crawford Pippin.** Large to very large, color light golden yellow with dull brownish red, with a lighter and brighter red and splashes of crimson, shaded specimens rather dark dull, almost turtle green which renders an unfavorable impression, flesh yellow, rather fine grained, sharp sub-acid flavor. Tree a good grower and bearer, December--January.

Dominie. [Wells, of Ohio, Str. R. I. Greening, Winter Rambo of some.] Large, roundish, oblate, pale striped, juicy, firm, fine grained, excellent, immense grower and bearer, fruit specks some, should be classed with the fall apples, November--December.

Esopus Spitzenburg. Large, round ovate, conical, surface a rich red, obscurely striped, flesh yellow, rich sprightly vinous flavor, one of the best. Tree slender grower, more so than Jonathan, November--January.

Golden Russet. Eng. Medium, roundish, usually a little oblong, sometimes slightly flattened, nearly regular, surface sometimes wholly a thick russet and on others a thin broken russet on green yellow skin, flesh fine grained, firm, crisp rich flavor. Tree irregular spotted shoots, an annual bearer, November--December.

Hatcher. [Hatcher's Seedling.] Of Tennessee, medium or above, color a beautiful dark red on a yellow ground, almost covering the fruit, flesh tender, fine grained, rich and juicy. Tree a good grower, and an abundant bearer, December--January.

Iowa Blush. Medium in size, roundish conical, whitish with red cheek, quality fine, tart. Tree vigorous and hardy on the prairies, November--January.

Kentucky Streak. [Bradford's best.] Fruit medium, conic, regular, deep mottled red, stripes obscured and

scarcely visible, dots scattered, large yellow, flesh yellow, tender.

Kinnaid's Choice. Habit of the tree like winesap, fruit medium to large, somewhat flattened, and mostly covered with a dark, rich red, flesh yellow, fine, crisp, tender, moderately juicy, and very aromatic, very hardy and productive, much the finest early winter apple in Tennessee. With care it is often kept through the entire winter.

King of Tompkins County. King Apple. Fruit very large, roundish or oblate, angular; skin yellowish, striped and clouded with fine dark and light red; flesh yellowish, tender, with a rich and very agreeable flavor. Tree a strong grower and a good bearer—December.

Lady. (Christmas Apple, Pomme d'Api) A handsome dessert fruit, flat, pale yellow with a brilliant red cheek; flesh crisp, juicy and pleasant. Tree erect, slow grower, not an early bearer, December--January.

McMahon. (A Wisconsin, Richland Co., Seedling.) Large, round, almost white, with a faint blush; flesh white, tender, acid, lacking in firmness as a market apple, fair cooking sort. Tree vigorous, spreading, resembles a crab and is said to be as hardy. October--January.

McIntosh Red. An exceedingly hardy, valuable Canada sort. Medium to large, nearly covered with red; flesh fine, juicy, white and refreshing, an annual bearer. Resembles Fameuse, but larger. November--January.

Milam. Rather small, roundish, greenish, shaded and striped with red; flesh rather firm, with a pleasant, sub-acid, moderate flavor. A splendid cider apple and a good culinary sort. Tree hardy and productive, December--

Mother. Rather large, oblong-ovate, approaching conical, slightly and obtusely ribbed, color a rich red on yellow ground, deep red to the sun in broken stripes; flesh yellow, tender, juicy, aromatic, sub-acid. Best. Tree a rather slow grower, upright, November--December.

Northern Spy. Large, roundish, slightly conical, somewhat ribbed, striped, with the sunny side nearly covered with purplish red; flesh fine, white and tender, mild sub-acid. Tree vigorous upright grower, should be pruned to an open top, otherwise the fruit lacks color, October--December

APPLES.—Early Winter Varieties Continued.
here, and in the north where it is in keeping, from January to May.

Occident. (California.)

Pewankee. Seedling of Duchesse of Oldenburg, possibly crossed with Romanstem. Fruit large ovate, waved, surface bright yellow, partly covered with dull red, striped and splashed, covered with a gray bloom and over-spread with whitish dots, stem variable in length with a fleshy substance on one side, same as found on the Romanstem; flesh yellowish white, juicy, rich sub-acid aromatic flavor, quality very good. Tree a strong grower, hardy, leaves do not put out early, December—January.

Pryor's Red. [Red Russet of some.] Fruit medium to large, irregular, often oblique, dull brick red in streaks and dots on yellow, more or less russeted; flesh very tender, mild, rich, sub-acid, good. Tree upright, slow coming into bearing, December—

Red Winter Sweet. Fruit medium, roundish conic, deep crimson on yellow, with indistinct splashes and stripes, many large and small light dots; flesh yellow, a little coarse, rich honeyed sweet. Tree upright, dark shoots, not hardy farther North, November—January.

Rome Beauty. [Gillet's.] Royal Red from Tennessee. An Ohio apple that succeeds fairly well over a great range of country. Fruit large, round, varying to conical, skin yellow, shaded and striped, bright red, flesh tender, rather coarse grained, juicy, quality good. Tree a good grower, October—January.

Russet, Roxbury (Boston). Medium to large; skin dull green at first, covered with brownish yellow russet when ripe; flesh greenish white, moderately juicy, with a rich, sub-acid flavor, good, —January.

Seek-No-Farther. [Westfield.] Medium to large, slightly russeted, with dull red stripes; tender, rich, spicy and fine, good bearer, November—December.

Stark. An Ohio apple, fruit large, oblong ovate conical, resembles Willow-twig in a marked degree, but longer and not as good color, skin greenish yellow, shaded, splashed and striped with dark red; moderately juicy, mild sub-acid, tree a stiff grower, January.

White Bellflower (Ortley). Large oblong, yellowish white, with pinkish

tinge in the sun; flesh white, fine grained, tender, juicy, sub-acid, good to very good; tree a slender grower in nursery, November—December.

Yellow Bellflower. Large, oblong ovate conical, yellow, with a tinge of red on the sunny side; flesh crisp, juicy, with a sprightly, aromatic flavor, a standard for quality; tree a free grower, yellowish shoots, November—January—

Westfield. See Seek-no-farther.

Winter Sweet Paradise. Rather large, roundish; skin pale greenish yellow with a brown blush; flesh white, *very good* flavor; tree upright, bears well, fruit inclined to drop premature on some soils, December—January.

Wolf River. This native of Wisconsin, both in tree and fruit, resembles the Alexander, but has distinctive features enough to prove them not identical; size large to very large, round, flattened, smooth, nearly covered with red in two shades of light and dark; flesh white, coarse, firm, juicy, sub-acid, tree strong grower, spreading, hardy, valuable for the north, October—January.

LATE WINTER APPLES.

Special or Long Keeping Apples.

Arkansas (Mammoth Black Twig). Originated on the farm of John Crawford, Washington county, Ark.; size large; color a bright mottled red on upper half, the lower half being a reddish yellow, cavity russeted, texture fine grained, flavor a mild, pleasant, sub-acid; flesh yellow, rich, firm and heavy; tree a strong grower and an abundant bearer, December—March.

H. R. MILLER, Rhea's Mill, Ark., says: "I am now living on the old Pleas. Crawford farm, where the old original 'Mammoth Black Twig' apple tree now stands, and can now look out at my door and see it in full bloom. I have been here three years and it has borne apples every year. I am satisfied that it can not be excelled in the West. The old tree is two feet through, measure taken four feet from the ground."

G. M. MATEER, Rhea's Mill, Washington county, Ark., says: "I am knowing to the fact that Pleas. Crawford gathered 45 bushels of sound shipping apples off of the old original 'Mammoth Black Twig' apple tree, and hauled them to Texas and got 'tip top' prices for them."

S. W. CHERRY, Rhea's Mill, Ark., says: "I have known the Mammoth Black Twig for seven years. Its bearing qualities are as good, if not better than the Ben Davis."

J. D. MABERRY, of Washington P. O., Ark., says: "I have helped Mr. Crawford's boys

APPLES.—Late Winter Varieties Continued. gather and load 45 bushels of sound Mammoth Black Twig apples at one time from the old original tree."

✓ **Arkansas Beauty.** This is one of the new varieties recently introduced by Col. E. F. Babcock, of Arkansas. Mr. Minch, of the *Farm and Garden*, says of it: "It is not like any apple we know, and is one of the most beautiful we ever saw. No painting, however perfect in color or clearness, can excel it, and for once, at least, we have an apple finer than the pictures of those we see in the nurserymen's order books." We describe the Arkansas Beauty as follows: Size, large; color, a beautiful light crimson in the shade, darker in the sun, with indistinct splashes and stripes over the whole surface of darker crimson; cavity narrow and moderately deep, stem rather small, basin narrow, rather deep and corrugated with many shallow furrows, calyx small, closed; flesh fine grained, whitish color, tinged with red and yellow; flavor a rich sub-acid, quality very good, tree a good grower, an early and abundant bearer, season late, an excellent keeper.

✓ **Arkansas Black.** This apple originated on the farm of John Braithwait, one mile northwest of Bentonville, Benton county, Ark.; tree very hardy and thrifty, an early and uniform bearer; the apple is large, smooth and round, very black, dotted with whitish specks, the flesh is yellow, very juicy and delicious flavor, one of the best cooking apples, specimens have been kept until August.

Ben Davis. (New York Pippin and other synonyms). Large, roundish oblong, striped, mostly red, very handsome, mild sub-acid, not rich, tree very vigorous, hardy and productive. For all sorts of locations this is the safest and most profitable market apple grown in this country, November—March.

Bloomless, Seedless and Coreless. Origin, Virginia; medium size, sub-acid, good, a late keeper, tree good grower, a real curiosity, as more than nine apples out of ten are destitute of seed or core, being solid meat, while occasionally an apple will be found with two or three seeds and an imperfect core, flowers with short petals, almost indistinct.

Clayton. Large, conical, flattened, regular, red with darker stripes, flesh yellow, breaking, sub-acid, good, a very valuable market sort; tree a

strong grower, long-lived, good bearer, December—March.

* **Coffelt.** A seedling from the Ben Davis, which the tree resembles in habit of growth. It possesses all the good qualities of the Ben Davis, with none of the bad. It is a good grower in nursery rows and in orchards, an abundant and regular bearer. The fruit hangs well on the tree, is a good handler, above medium size, somewhat resembling the Limbertwig in form, but considerably larger, beautifully striped and splashed with red on yellowish ground, is a much longer keeper, and is far superior to the Ben Davis in flavor. I am confident that no new seedling apple has been introduced for years of equal merit, particularly one so well adapted to this Southwestern country and the Pacific coast. It keeps, with ordinary care, until May, as any orchardist can readily understand, combining, as it does, all the requisites of a first-class market apple. It offers an almost absolute guarantee of success. The above description is given by Mr. Babcock, the introducer of this apple.

Cullesaga. Fruit medium to large, roundish, somewhat flattened, skin mostly covered with dark rich red; flesh yellow, with a mild, rich flavor, affined to Red Limbertwig, January—April.

Elkhorn. (From Arkansas). Exhibited at Springdale, Ark., at Arkansas State Horticultural meeting. Tree a good grower, an annual bearer; fruit large to very large, a plate of apples exhibited at Rogers, Ark., fair, 1889, specimens weighed from 14 to 22 ounces; shape flat, sometimes oblique, surface yellowish, covered with rather deep mixed red over a yellowish ground, numerous gray dots; flesh yellowish, sub-acid, quality good, a premium apple, December—February.

Edgar Red Streak (Walbridge). Origin, Edgar county, Ills. Medium size, oblate, regular, skin pale yellow, shaded with red; flesh crisp, tender, juicy, esteemed for its hardness and productiveness, a late keeper; tree vigorous, with long leaves, January—March.

Fink. Fruit small, oblate, whitish yellow, having a crimson cheek next to the sun; flesh whitish, firm, sub-acid, fair quality, tree very vigorous, upright, January—June. Has been kept till following season's fruit was shown side by side.

APPLES.—Late Winter Varieties Continued.

Franklin Sweet. A new sweet apple from Maine. Fair size, color similar to Bellflower; flesh white and very juicy, keeps through January without any trouble, has been kept until March.

Gano (Red Ben Davis). Large, perfect form, conical, very smooth, deep red, shaded on sunny side, extremely attractive; flesh pale, fine grained, tender, pleasant, mild, sub-acid, good shipper and keeper; tree healthy, vigorous and hardy, an early, annual and prolific bearer, December—March.

Geneton (Rawles Janet, Jannett, Never Fail). Medium in size, roundish, pale red stripes on light yellow ground; flesh nearly white, crisp, very juicy, mild sub-acid, a well known apple, fruit should be thinned, otherwise it will be small; tree a free grower, leaves out later than others, blossoms late, December—April.

Gideon's Best (Peter). "Origin Wealthy seed, and in form, size and color an exact duplicate of its parent, but differing in flavor and season, keeping from four to six weeks longer; fruit adheres well to the tree, which is a handsome grower, harder than Duchess or Wealthy."

Grindstone (American Pippin). Medium size, regular form, flat, dull red in patches and stripes on a dull green ground; flesh white, firm, juicy, with a somewhat brisk acid flavor, good; tree thrifty, crooked, June.

✓***Gill's Beauty.** One of Coffelt's seedlings. Large, roundish, slightly oblong, inclined to oblique shape in some specimens; bright red on yellow ground, some stripes; tree a strong grower and good bearer, a long keeper.

Huntsman's Favorite. Origin, Johnson county, Mo. Large, flat, inclined to oblique conic, deep yellow with red cheek; flesh yellow, fine flavor, almost sweet; tree vigorous, not an early bearer, should be kept with an open top, otherwise fruit is lacking in color, December—February.

Ingram. Seedling of Rawles Janet, originated with Martin Ingram, of Greene Co., Mo. Fruit about medium size, dark and light red in stripes, with bloom; flesh yellowish white, firm, crisp, very mild sub-acid, aromatic flavor; tree an upright vigorous grower, an abundant bearer, keeps until apples come again.

Indian. Fruit large as the largest Ben Davis, resembles it in shape, a little

duller in color and has a richer yellow meat, making it a pleasant eating and dessert apple, keeps well. Where known, is preferred to Ben Davis; tree a strong upright grower.

Jones' Seedling. Origin, Tennessee. Fruit medium to large, roundish, conical, sometimes angular; color light, stripes on yellow ground, resembling a pale striped Pearmain, believed to be a cross between the Limbertwig and Pearmain; flavor rich, mild, pleasant, sub-acid, almost sweet; tree resembles Limbertwig, keeps well till April.

Kossouth. Medium in size, regular, flat, resembles American Pippin or Grindstone, large patches of russet, red stripes on yellow ground; flesh tender and crisp, rich sweet flavor; tree a free open grower, keeps through winter.

Large Striped Pearmain (McAffee's Mo. Superior, etc.). Fruit very large, striped with red on yellow ground; flesh firm, rich, almost sweet, good but not an early bearer; tree upright, spreading, identical with the Lawver, but not in the fruit, December—March.

Langford Seedling (Romanite type). A seedling of great promise. Original tree now growing on the lot of a colored man on Langford Bay, Kent Co., Md. Large size, red and striped; tree hardy and a good grower, bears annual crops; fruit of excellent quality, and its superior keeping qualities recommend it to all, keeping until May or June with ordinary treatment, where the Baldwin, raised in the same section, will not keep longer than Christmas.

Lansingburg. Fruit medium, roundish oblate, yellow, overspread with grayish red; flesh firm, mild sub-acid, good; tree upright spreading, moderately productive; valued as a long keeper, January—May.

Lawver. Origin, Platte Co., Mo. Large, roundish, flat, mild, sub-acid, very heavy and hard, beautiful dark red, the handsomest of all the extra late keepers; tree a vigorous, good grower, very hardy, and while it is not an early bearer on most soils, it does well on others. Delaware Winter (de Lawver) is no doubt the same. After being "blowed up in the east by experts," it comes back to us again with a recommendation that it is better than their best—the Baldwin apple. However, we advise planting it sparingly in a commercial way.

APPLES.—Late Winter Varieties Continued.

Limbertain. See Red Limbertwig.

Little Red Romanite (Carthouse, Gilpin). Small to medium, round to cylindrical, very smooth skin, striped red on yellow ground; flesh yellow, very heavy and hard, almost sweet, valuable as a late keeper and for cider; tree vigorous, spreading, hardy, very early and heavy bearer, January—May.

✓ **Loy.** Origin, Missouri. In size as large as the Ben Davis, resembles Willow-twig in form, color a beautiful red on yellow ground, deepening into a rich bronze or russet, with marblings, minute dots; flesh fine rich yellow, juicy, resembles Pryor's Red slightly in flavor. The original tree commenced bearing at five years old; bears annually, December—January.

Mann. Fruit medium to large, roundish, oblate, deep yellow, often shaded with brownish red on exposed parts, same as is often found on the Tulpenhocken; juicy, mild, pleasant, sub-acid; tree an upright grower, an early and annual bearer, January—April.

✓ **Martha Washington.** A seedling of Mr. Coffelt. Large to very large, striped, dull red on yellow ground, sub-acid, partakes of Limbertwig; tree a good grower, bears well, regarded as a decided acquisition; should be in every collection.

Minkler (Brandywine). Fruit medium to large, roundish oblate, slightly conic; color pale greenish yellow, striped with red; flesh yellow, compact, moderately juicy, pleasant sub-acid; tree an irregular grower, like Little Romanite, but not as early bearer, January—March.

Missouri Pippin. Large, roundish, oblate, slightly oblique, somewhat flattened at the ends, skin pale, whitish yellow, shaded, striped and splashed light and dark red, bright red in the sun, many gray dots; flesh whitish, juicy, sub-acid, in quality somewhat better than Ben Davis; tree vigorous, and the earliest bearer of the entire winter list of apples. In an orchard of 20,000 trees, planted in Iowa, 10,000 were Ben Davis, 7,000 Missouri Pippin, balance Huntsman and York Imperial. A Kansas orchard of 500 acres is planted with Ben Davis and Missouri Pippin, placing it second on the list of commercial favorites, December—April.

North Carolina Limbertwig (Hodge). Fruit small, roundish, whitish, thinly shaded, splashed, and striped in the sun; flesh white, rather firm, juicy,

sprightly sub acid, very good, December—

Newton Pippin. Medium to large, shape irregular and generally oblique; color light green, becoming yellow, often brownish red cheek in the sun; flesh firm, very juicy, rich, aromatic, very best in quality; tree a slow grower, needs a rich soil, when it becomes a fair bearer, one of the best suited to California, December—February.

Nick-a-Jack. Large to very large, roundish oblate, often oblique, color yellowish, the most profusely striped apple known, partially covered with a thin bloom, large dots; flesh yellow, firm and heavy, sub-acid, good flavor; tree vigorous, upright, spreading, young trees have a warty appearance on the bodies, which also extends to the limbs as the tree attains age, valuable in the South, November—March.

Northwest Greening. Origin, Wisconsin. Fruit medium to large, round ovate to conic, smooth, greenish yellow, often a faint blush; flesh fine grained, firm, juicy, sub-acid, good; tree one of the best growers, dark heavy shoots, which are spotted in a marked degree. One of the best at the North, and will take a firm hold among the yellow or green varieties at the South; a good bearer, January—March.

Red Bellflower. "A California seedling, being a cross between the Yellow Bellflower and Red June. A committee of the State Horticultural Society last fall reported most favorably on this apple, and Dr. Strentzel mentions it in his report to the American Pomological Society. It is undoubtedly the finest market apple in California, and comes in at a season when good apples are always scarce. It has the deep, brilliant red of the Red June, with its sprightly, acid flavor, but the exact shape of a good sized Yellow Bellflower, although the tree is of more upright growth, and a regular and heavy bearer."

Red Limbertwig. Medium to large, roundish, slightly conical, greenish yellow, shaded and striped with dull crimson; flesh greenish white, adhering in particles to the seed, not very tender or juicy, sub-acid flavor, valued mainly for long keeping, not good until all other apples are gone; tree a wiry, spurry, spreading grower, bears well, January—June.

Salome. Medium, roundish, slightly conical, striped, red on pale yellow ground; flesh tender, sub-acid, juicy, crisp, very good; tree a strong grower

APPLES.—Late Winter Varieties Continued.
and said to be as hardy as Wealthy, Jannet type, March.

Scott's Winter. Origin, Vermont. Fruit medium, roundish, deep red and light red in blotches and streaks; flesh yellowish white, slightly reddened near the skin, rather acid and good in quality. Dr. Hoskins, of Vermont, pronounces it his most profitable market apple. Keeps till June.

Shackleford. Origin, Clark Co., Mo. Fruit large, highly colored and finely flavored; tree a vigorous grower, but not as hardy as first reported, December—March.

Shockley. Medium, conical, pale yellow, overspread with bright red; flesh crisp, juicy, pleasant sub-acid; its long stem makes it a fine variety for Christmas tree decoration, generally considered the best keeper in the South, November—June.

Smith's Cider. A handsome fruit, large, oblong, somewhat flattened, skin yellow, shaded and striped light red, yellow dots; flesh white, tender, crisp, moderate sub-acid flavor; tree a strong irregular grower, regular bearer, November—March.

✓ **Virginia Greening** (Gen. Lee). A large yellow apple, with a faint blush, large dots; flesh yellow, fine grained, firm and rich flavored, esteemed in the South for its keeping qualities; tree upright, spreading, not hardy.

Walbridge. See Edgar Red Streak.

✓ **Wandering Spy.** One of Coffelt's seedlings. Large, roundish, conic, deep bright red on yellow ground; flesh whitish, juicy, crisp, sub-acid, very good flavor, and withal a handsome fruit, and will, we think, take a foremost rank among high colored winter apples, December—March.

White Pippin. A Winter Pippin of the Newton class; fruit large, roundish, oblate, varying to oblique shape, clear greenish white, becoming light yellow when mature, often with a blush on outward specimens; flesh white, tender, crisp, juicy, rich sub-acid; tree an upright grower, bears well, better than the Newton for the West, January—March.

White Winter Pearmain. Medium to large, conical, ribbed, light yellowish green with a brownish cheek; flesh yellowish, tender, fine grained, mild sub-acid, rich, aromatic flavor, none better in quality, plant them, no matter about the color; tree a fair grower, must not be planted on wet land, otherwise productive, December—March.

Willowtwig. Large, roundish, greenish yellow, striped with dull red; flesh firm, rather coarse and acid, not rich, valued as a market variety; tree a fair grower with slender shoots, very hardy January—April.

Winesap. Medium in size, round ovate conical, of deep red color with a few streaks and a little yellow ground appearing on the shady side; flesh yellow, firm, crisp, with a rich high flavor, quality very good; tree vigorous, irregular, must be headed in, bears abundantly, December—March.

Winter Green. [Poorhouse.] Origin, Tennessee. Fruit large, roundish, pale yellowish green, mild sub-acid, December—

Winter May. Fruit medium to large, roundish, conical, pale greenish yellow, slightly brownish in the sun; flesh whitish, fine grained, compact, not very juicy, mild sub acid, core rather large and open, good; tree a bushy grower, good bearer, valued in Kansas, February—June.

Yates. Small in size, dark red, with numerous gray spots; flesh yellow, firm, juicy and aromatic; tree a splendid grower, profuse yearly bearer, November—March. Sometimes classed with the crabs.

York Imperial (Johnson's Fine Winter) Fruit medium to large, roundish oval, oblique, ribbed, yellowish, shaded with crimson in the sun; flesh firm, crisp, juicy, pleasant, mild sub-acid; tree moderate compact grower, good bearer, and where it holds its fruit well makes a splendid market variety, November—February.

*Varieties starred are seedlings from Mr. Wyatt Coffelt. Originated from seed of Limbertwig and Ben Davis. Mr. Coffelt stated to us at the Arkansas State Horticultural meeting at Springdale, Ark.: "In the fall of 1866 I bought a load of apples—Ben Davis and Limbertwig—from Jim Burns; saved and planted the seeds and set out trees, from which all my seedlings came." —

SIBERIAN AND NATIVE CRAB APPLES.

Much improvement has been made in the last few years on this class of trees. They now embrace a great variety in size, color, season and flavor. They are both useful and ornamental; a front yard is hardly complete without two or three trees loaded with their rich colored

CRAB APPLES—Continued.

fruit. They are an ornament anywhere.

Crab Apples are valuable for cider, preserving, jelly, and some of the lately introduced sorts are excellent for dessert; especially is this so in the Martha Crab. They generally bring good prices on the market.

Alaska. Of Northern origin. Fruit large, almost white, tree hardy, vigorous, highly recommended by those who have it in fruiting. (New.)

✓ **Chase's Blush (Jelly).** "This fine flavored new crab originated in Maine. It is larger than the Transcendent, smoother and of good flavor. The sauce made from it is pronounced by one of our nurserymen superb. A lady who has tried it says that jelly made from it is the nicest she ever made."

General Grant. Fruit round, oblate, of large size for a crab, skin cream yellow ground, broken stripes becoming red on sun-exposed side, very mild sub-acid, October—December.

Hewes' Virginia. Rather small, round, dull red, dotted with white; acid, astringent, esteemed for cider.

Florence. (P. M. Gideon's No. 3.) Size of Transcendent, quality next to Martha, color light yellow, nearly covered with bright red streaks. Mr. Gideon says "Every year in fruit a solid mass, and looks like a huge Flowering Almond." Tree rather a slow, spreading grower, early and profuse bearer.

Golden Beauty of Paradise. A native crab of large size, oblong, deep yellow, good flavor, very fragrant; tree a stronger grower than the Soulard, which it resembles in foliage, November—January.

Hyslop. Fruit large sized, produced in clusters, roundish, ovate, dark rich purplish red, covered with thick blue bloom; flesh inclining to yellow, sub-acid, good for cider and for culinary purposes, very popular on account of its large size, beauty and hardness.

Martha. Large, oblate, smooth, a beautiful color, soft creamy yellow, overspread with a light vermilion blush on exposed specimens, dots extending over the entire surface; flesh yellowish, fine grained, very pleasant sub-acid, a good eating apple, unsurpassed for culinary use, either dried, canned or preserved. As a cider fruit we have pinned our faith on it in planting 1280 trees around the outside of a 160 acre orchard. Tree a rapid,

stiff grower, pyramidal, long leaves, very hardy, early and profuse bearer. Speaking of illustrating varieties, *The Horticultural Art Journal*, Rochester, N. Y., says: "Our friends in the Southwest (Missouri) thought we had not done this popular variety justice, either in size or appearance, so, during the past season (1889) they sent us a small box of this crab. To say that they were handsome conveys but a poor idea of their appearance. Most of the specimens measured eight inches or over, and weighed three and a half ounces. This is by no means a new variety. It has been grown in this section for some time, but never more than half the size, nor half so brilliant. If we were to truthfully represent this by a colored engraving, as it to-day appears on our table, some would surely say that it was overdrawn as to size and appearance. It is true that varieties do not succeed everywhere alike, but that is not the fault of the variety, but simply the conditions that surround it."

✓ **Peach Crab.** Large as Transcendent, beautiful peach colored cheek; excellent.

Quaker Beauty. Fruit large, conical, with beautiful red cheek on a groundwork of white, quality best; tree a strong grower, spreading, bears large crops alternate years.

Red Crab. (Kentucky Red Crab.) Highly esteemed in Kentucky for making cider. Fruit small, red, keeps well till spring, and can be made into very superior cider at any time during the winter. Tree vigorous, hardy, immensely productive.

Red Siberian. Fruit small, about an inch in diameter, growing in clusters, yellow with scarlet cheek, beautiful; tree an erect, free grower, bears very young, often on three year old trees, —September—

Soulard. Native. One of the largest of this class of apples, sour and astringent for eating, but has when cooked a fine quince-like flavor; color green, becoming yellow in spring; tree rather slow, spreading, productive. Valued also for its fragrant perfume, of the wild crab.

Transcendent. Medium to large size, roundish oblong, golden yellow, with a rich crimson red cheek, covered with a delicate white bloom. At ripening the red nearly covers the whole surface; flesh yellow, crisp, and when fully ripe, pleasant and agreeable; tree a

stout grower, perfectly hardy; August—September.

Van Wyck's Sweet. A beautiful, good sized fruit of pleasant flavor, skin yellowish white, colored red and covered with bloom; flesh sweet and tender, core small—September.

Whitney's No. 20. Large, averaging nearly two inches in diameter, borne in clusters, skin smooth glossy green, striped and splashed with carmine; flesh firm and juicy at first, becoming mealy, pleasant flavor, the earliest crab apple to ripen—with the Red June—and by some considered better as an eating apple. Tree the handsomest grower among apples, and with its green glossy foliage, is an ornament anywhere; perfectly hardy, prolific bearer. Should be in every collection.

PEARS.

The cultivation of this noble fruit should not be overlooked. It far excels the apple in its peculiar delicacy, melting, juicy texture, rich refined flavor and delicate aroma. Being more difficult to propagate, the price is more advanced; still, as the value of this fruit is appreciated, the cultivation is extended, and while the list is not in keeping with the apple, yet the range of varieties cover the greater part of the season, beginning with the Doy'd'Ete (Summer) and extending on through to the holidays at least, and in some localities later.

All want some pears, and the way to have them is to plant them, but it must be understood that they need attention, (careful cultivation for a number of years at least) and not left to take care of themselves, and expect handsome fruit.

Pears should be picked before maturity; (not allowed to ripen on the trees) ripened in the house they are much better. Many kinds are almost worthless if allowed to ripen on the trees, either in lack of juiciness or richness. Thinning the fruit, if too full, increases the size.

DWARF PEARS are budded on Angers Quince stocks, and should be planted below the bud—or juncture of pear and quince—several inches. They require rich soil and an occasional top dressing of well-rotted manure and leached wood ashes, and well repay the outlay in finer fruit and more of it.

STANDARD PEARS are worked on pear stocks, and while they do not bear as early, they make it up in larger yields when they do come in. It is still a dis-

puted question as to which is the most profitable in the long run.

The letters "D" and "S" appended to the description of varieties indicate favorable growth either as "Dwarfs" or "Standards," or both. Those designated as "slow growers" are usually small trees.

Bartlett. First on the list, and deservedly so. Large in size, irregular in form, with a blush on the sunny side, very juicy, buttery and melting, with a rich, rather musky flavor; tree a strong grower, bears young, even as a standard, could well be said of this variety: he who plants of this pear will not plant alone for his heirs. Succeeds over a larger extent of country than any other.—August. D. S.

Clapp's Favorite. Large size, pale lemon yellow, becoming yellow when full ripe, bright red cheek to the sun; flesh fine/grained, juicy, melting, rich and buttery, earlier than Bartlett; tree a stronger grower than Flemish Beauty, which it resembles otherwise, August. D. S.

Doyenne d'Ete. [Summer Doyenne.] Small size, yellow, with a blush on sunny side, melting and sweet, with a pleasant flavor; tree a fair grower and very productive, ripens with the Amsden peaches, latter part of June, D. S.

Giffard. [Beurre Giffard.] Medium, greenish yellow, red in the sun; tree a slender grower, healthy, hardy and productive—August. D. S.

Kingsessing. Large, greenish yellow, flesh juicy, buttery, with a rich perfumed flavor; tree a good grower.—September—D. S.

Manning's Elizabeth. Below medium in size, bright yellow with a lively red cheek, dotted with brown and red dots, flesh juicy and melting; tree a moderate grower, very productive, one of the best—August—D. S.

Lawson, or Comet. One of the most beautiful pears, being when fully ripe a brilliant crimson on a clear, yellow ground; flesh rich, juicy and pleasant, but, like many of our most popular market fruits, not of high quality, ripens first part of July, and is the most attractive early pear that was ever placed upon the market. Tree a good but not regular grower, a prolific annual cropper, begins bearing young.

Osband's Summer. Medium size, inclining to round, juicy and melting, with a rich sugary flavor, often slightly perfumed; tree moderate erect

PEARS—Continued.

grower, ashy colored shoots, productive—August—D. S.

Wilder Early. Size medium, regular in form, greenish yellow, with a brownish-red cheek and numerous dots; flesh white, fine grained, melting, excellent, about three weeks earlier than the Bartlett, very prolific.

AUTUMN VARIETIES. First Part.

Angouleme. [Duchesse.] We place this at the head of the Autumn list, knowing full well that it is more commonly known under name of Duchesse, being the largest of all of our good sorts, has a rough and uneven surface, color greenish yellow, with patches of russet and a dull red cheek. Tree a good grower, an early bearer on quince, when it attains its greatest perfection, freer from blight than any pear so far, the Chinese sand-pear type not excepted, September—October. D. S.

Belle Lucrative. Large, yellowish green, melting and delicious; tree an upright grower, bears young, September.

Buffum. Medium in size, yellow, somewhat covered with reddish brown and russet, its rough skin distinguishing it from Seckel, with which this variety is often confounded, buttery, sweet and good flavored; tree a vigorous, upright grower, very productive, one of the finest orchard varieties, and planted extensively for market, August—September. D. S.

Duchesse. See Angouleme.

Doyenne White. Small but of highest excellence, succeeds well in most parts of the West. October—D. S.

Edmunds. Large, surface irregular, stalk long, flesh whitish, melting, sweet, perfumed; tree an irregular grower, good bearer, August—September. D. S.

Flemish Beauty. Large, beautiful pale reddish brown on yellow ground, juicy, melting, sweet, rots at the core, should be gathered early, September. D. S.

Howell. Large size, light waxen yellow, sweet and melting, of excellent quality; tree a strong and healthy grower, good bearer. One of the best American varieties, and extensively planted all over the country, September—D. S.

Idaho. A seedling of a large red cheeked pear, name unknown, raised by Mrs.

Mulkey, of Lewiston, Idaho, who planted the seed about twenty years ago. The tree fruited the fourth year from seed, and has borne annually ever since, seeming to be entirely hardy. Fruit is of the largest size, color greenish yellow, with russet spots, form roundish or obovate; flesh melting, juicy, entirely free from gritty texture, flavor good, rich, sprightly vinous, "core exceedingly small and without seeds," season, September and October.

Kieffer's Hybrid. Fruit large, rich yellow, tinged with red, somewhat russeted, very handsome; flesh white, juicy, variable as to quality, best for canning and preserving; tree a beautiful upright grower, makes a good showing as an ornamental tree, a very prolific bearer, September—October. S. D.

Le Conte. A cross between the Chinese Sand Pear and some other variety unknown, of remarkable vigor and beauty of growth. The fruit is very large and bell shaped, of a rich creamy yellow when ripe, very smooth and fine looking, and ships well. Esteemed in some parts of the South, more especially along the Gulf coast. Largely grown from cuttings, September.

Louise Bonne de Jersey. Large size, oblong, pyraform, pale green in the shade, but overspread with brownish red in the sun, very juicy and melting, with a rich and excellent flavor, a profitable market variety, succeeds best as a Dwarf—September—D. S.

Seckel. Small size, yellowish smooth russet, with a red cheek; flesh whitish, buttery, very juicy and melting, with a peculiarly rich, spicy flavor and aroma, the standard of excellence, extensively planted all over the country, a most prolific bearer—September. D. S.

Sheldon. Large size, roundish, greenish yellow, mostly covered with thin light russet, very juicy, melting, sweet and vinous, a fine grower and bearer as a standard, does not succeed on the quince, September—October.

Select Autumn and Early Winter Pears.

Anjou. [Beurre d'Anjou.] Again we place at the head of this list what we feel satisfied is entitled to first position. Large in size, pyraform, light green, with russet and red cheek, rich, melting and excellent, slightly vinous flavor; tree good every way, either standard or dwarf; season, last week

PEARS—Continued.

of September, and with care can be kept several months longer, often till Christmas.

Clairgeau. [Beurre Clairgeau.] Very large, pyraform, yellow and red, with brown dots encircled with vermilion; flesh yellowish, buttery, with a sugary perfumed flavor; tree a free grower and an early bearer, October—November. D. S.

✓ **Cole's Coreless and Seedless.** This is a new pear introduced into the South from Kansas, where it has been tested a number of years, September.

Duchess de Bordeaux. Medium size, with a very tough, thick, yellow skin, with lines of russet; flesh buttery, juicy and sweet, agreeable flavor; tree a good grower when established, bears early, even as a standard, November—January.

Easter Beurre. Large size, yellow, with a brownish red cheek, rich and melting, excellent quality; tree moderate grower, good bearer, best as a dwarf, November—January.

Lawrence. Medium to large, obovate, yellow; flesh melting, with a pleasant aromatic flavor; tree a moderate spreading grower, an abundant bearer. November—December. D. S.

Mt. Vernon. Medium to large, rich russet color, juicy, rich, melting, with a spicy flavor; tree an irregular grower, —November—D. S.

✓ **President Mas.** Large obovate, or approaching pyraform, irregular, skin greenish yellow—which is against it—flesh melting, juicy, slightly vinous, very good; tree a moderate grower, of heavy wood, best as a dwarf, December—January.

Vicar of Winkfield. Large size, long, fine rich yellow when fully ripe; tree very vigorous and productive, best as a dwarf, December—D. S.

Winter Nelis. Medium in size, greenish yellow, spotted with russet, melting and buttery, with a rich, sprightly flavor; tree a straggling grower, should be top-worked to obtain good trees; very productive, December.

almost any soil not wet. Plant 16 to 20 feet apart. The Mahaleb stock is now most generally used. It does not sprout, and as the trees do not grow as rapidly the trees naturally form their branches lower, preventing sun scald in a measure; besides having the fruit nearer within reach at the time of gathering. Sweet cherries are not suited to Southwest.

Heart and Bigarreau (Sweet) Cherries.

This class should be headed back as all are vigorous growers.

Black Tartarian. Fruit very large, heart shaped, with an uneven surface; skin bright black; flesh purplish, tender, rich and good. Tree an upright grower and very productive.

Early Lamaurie. Similar to Early Purple Guigne, fruit ripens a week earlier. Large, dark purple, juicy, rich and excellent; tree a strong grower. The earliest of sweet cherries, May—

Early Purple Guigne. Fruit medium size, heart shaped, skin dark red or purple; flesh tender, juicy and sweet; tree a variable grower, hardy and productive, May—June.

Elton. Fruit large, pointed, heart-shaped, skin pale yellow, nearly covered with light red, flesh rather firm, juicy and excellent; tree vigorous and productive—June.

Governor Wood. Fruit roundish, heart-shaped, light yellow, nearly covered with red, flesh rather firm, juicy and excellent; tree vigorous and productive. One of the finest of light colored cherries—June.

Royal Ann. [Napoleon Bigarreau.] Fruit of the largest size, pale yellow, with a bright red cheek, flesh very firm, juicy, and when fully ripe, of an excellent flavor; tree vigorous and productive—June—

Schmidt's Bigarreau. A most promising cherry, fruit of large size, of a rich, deep black, flesh dark, tender, very juicy, with a fine flavor; tree a stout grower, with very large hanging leaves which hide the fruit.

Windsor. From Canada. Fruit large, liver colored, flesh remarkably firm and of fine quality; tree hardy and prolific, a late variety.

Duke and Morello (Sour) Cherries.

The Dukes have stout, erect branches, while the Morellos have slender, spreading branches. Both classes do well in the Southwest, in fact all over the States.

CHERRIES.

Of all the fruit trees there is scarcely any more desirable than the cherry. Requiring but a small plat of ground to supply a family, it is one of the most ornamental of all fruit trees. Thrives on

CHERRIES—Continued.

Early Richmond. (Kentish, Virginian May.) Fruit medium size, round, bright red, darker when fully ripe, melting, juicy, sprightly, acid flavor, stone adheres to the stalk, and can be pitted in stripping the cherries through between the fingers while gathering for home use; for market the stems must be left on; tree hardy; most valuable early acid cherry, blooms early, ripens just as the strawberry season closes—Ma.

Dyehouse. Resembles Early Richmond, said to be earlier, introduced by a Mr. Black.

English Morello. Large, dark red, nearly black, tender, juicy, sub-acid, rich; tree dwarfish and slow grower, forming a round, compact head, very prolific bearer, fruit can be gathered with but little expense, June.

Lieb. A strong upright grower, late coming into bearing.

Montmorency, Ord. A large red cherry, ripening a week or so after Early Richmond, tree a slow but stiff grower, very prolific bearer, valuable. Distinguished from Large Montmorency.

May Duke. Large, dark red, juicy and rich, ripens in long succession—May—

Olivet. This variety was sent out as being of great value, but it is not worth standing room, unless it bears better when it attains age.

Ostheim. Fruit large, roundish oblate, flesh liver colored, tender, juicy, rich, almost sweet sub-acid, very good; tree grows little, if anything, better than English Morello, and belongs to that class. One of the very best and most prolific bearers.

Royal Duke. One of the largest Dukes, roundish, distinctly oblate, surface dark red, flesh reddish, tender, juicy, rich; tree a very stiff, upright grower, ripens after May Duke.

Wragg. Said to be larger, later and more productive than English Morello, a poor grower.

or well rotted manure if nothing else is to be had. Cut the trees back severely whenever the fruit buds are known to be killed. Follow the "shortening in" method during the fruitful seasons, as it must be borne in mind that the fruit is produced on the wood of the previous season's growth.

For convenience, we have classified the list into **EARLY, MEDIUM** and **LATE**. We also describe flowers, whether large or small; and glands, globose or reniform (kindey-shaped.)

Early Peaches.

Alexander. [Alexander's Early.] Originated in Illinois. Fruit large, greenish white, nearly covered with deep rich red; flesh greenish white, sometimes stained next the skin, very juicy, quality good, adheres to the stone slightly, should remain on the tree until fully ripe, like all the very early peaches; it colors up so early it is often plucked before ripe, whence it receives an undeserved condemnation, while if left until fully ripe it is half melting and sweet. Glands globose; flowers large. June—

Amsden's June. Originated within 15 miles of here. Ark. Traveler, Briggs' Red May, Bakers, Gov. Garland, Shumaker, S. G. French, Wilder and many others that were catalogued to ripen from 5 to 10 days ahead of Amsden's June, have hardly exceeded it in so many hours—nay, minutes. We therefore do not describe them.

Early Rivers. [Rivers Early.] Large, pale straw color, with a delicate pink cheek, flesh melting, rich racy flavor. Glands reniform, flowers large, semi-cling—July.

Hale's Early. Medium to large, whitish green, nearly covered with marbled red, flesh melting and rich; the parent of all the very early peaches, and like all of that class, more or less subject to rot. It is to be hoped that an effective remedy will be found to check it entirely. Glands globose, flowers large, semi-cling, 4th of July.

Hynes' Surprise. Medium to large, resembles Hale's, except perhaps a smoother green surface, and in consequence a brighter red, almost a free-stone when fully ripe. Globose glands, flowers large, season before Hale's.

Japan Blood Dwarf. [Dwarf Japan Blood, Chinese Blood.] Of recent introduction, and claimed to be the best flavored early shipping peach in existence, described as ripening with Alexander, equally as large, deep red all

PEACHES.

The peach is so well known that it seems superfluous to give this "Queen of Fruits" lengthy description, when it is so well known that in this country is where it attains its greatest perfection.

The peach requires a well drained soil. Sandy or gravelly loam suits it admirably, if fertile; otherwise it should be fertilized with ashes, potash and bone,

PEACHES—Continued.

over. Tree is of dwarf, spreading growth, bears young.

Medium Season Peaches.

Crawford's Early. A magnificent large yellow peach with red cheek, flesh yellow, rich, sweet and luscious. No other variety has been so extensively planted. Globose glands, flowers small, free-stone--August.

Crawford's Late. [Late Crawford.] Largest size, skin yellow with red cheek, flesh yellow. Tree vigorous, moderately productive. Globose glands, flowers small, free-stone, August—

Chinese Cling. Fruit very large, skin pale straw color, with a delicate pink cheek, flesh exceedingly juicy, sweet, red at the stone; tree irregular. Glands reniform, flowers large. The main shipping variety in Texas and Arkansas, July--August.

Druid Hill. Originated in Maryland. Fruit large, skin pale greenish white with red cheek, flesh white, purplish red at the stone, juicy, highly flavored, prolific. Globose glands, flowers small--August--

Elberta. Very large, skin golden yellow with red cheek where exposed to the sun, faintly striped with red, flesh yellow, very fine grain, juicy, rich, sweet and splendidly flavored; tree very prolific and presents a handsome appearance, and a more luxuriant growth than the "Chinese Cling," from which it is a seedling, fruit perfectly free from rot, and one of the most successful shipping varieties, free-stone. Glands reniform, flowers small--August.

Eaton's Golden Cling. Very large, round, skin golden yellow, flesh yellow, very sweet, juicy and rich, one of the best fall varieties of clings. Glands reniform, flowers large, September--

Family Favorite. Large, white, with a faint blush on the sunny side, flesh white, very valuable either as a shipping, drying or canning fruit, free-stone, seedling of Chinese Cling. --August.

Flaters. [Yellow St. John.] Large, nearly the size of Crawford's Early, skin yellow, with dark red cheek, flesh yellow, juicy, vinous, very good; tree good grower, more productive than Early Crawford, succeeds well in California, Georgia, Arkansas and parts of Texas. Glands globose, flowers small, July 20.

Foster. Considered one of the very best peaches of American origin, fruit very large, resembling Crawford's Early, the fruit being more uniform in size and of better quality, ripens a few days before it. Glands globose, flowers small, August 1st.

General Lee. Large size, skin yellowish white, washed with carmine, flesh creamy white, with the same red at the stone as found in the Chinese Cling, of which it is a seedling; tree a better grower than its parent, and is considered better every way, ripening nearly a week earlier. Glands reniform, flowers large, July--

Globe. Said to be an improvement on Crawford's Late. Fruit large, globular, of a rich golden yellow with a red blush, flesh yellow, juicy. Glands globose, flowers small, August--

Jives Blood Free. Medium to large size, blood red throughout; tree hardy and a good bearer. Glands reniform, flowers large.

Large Early York. (Honest John of some.) A large and beautiful variety, white with red cheek, flesh juicy and delicious; tree vigorous and productive, one of the very best of its season. Glands globose, flowers small, July--

Lemon Cling. (Pine Apple Cling.) Large, oblong, having a swollen point similar to a lemon, skin yellow with red cheek, flesh yellow, firm, juicy and sweet; tree a fine grower. Glands reniform, flowers small, August--

Lemon Free. The name is very appropriate, as it is of almost lemon shape, being longer than broad, pointed at the apex, color a pale lemon yellow when ripe. It is of large size, the finest specimens measuring over twelve inches in circumference, of excellent quality, ripens after the Late Crawford, is immensely productive, and will undoubtedly become one of the leading orchard varieties. Glands reniform.

Mountain Rose. Large, roundish, skin whitish, nearly covered with dark red, flesh white, juicy, very good; tree vigorous and very productive. Glands globose, flowers small, free-stone, July--

Mrs. Brett. Large size, color white, shaded with dark rich red when fully exposed, flesh white, red at the pit, juicy, melting, rich and sweet, said to be an improved Old Mixon Free. Glands globose, flowers small, free-stone, July--August.

PEACHES—Continued.

Old Mixon Cling. Fruit large, skin yellowish white, with a red cheek, flesh pale, juicy and rich, high flavor. One of the best if not the very best cling-stone peaches in existence. Tree a fine grower, prolific bearer. Glands globose, flowers small, August—

Old Mixon Free. Large, greenish white to yellow, with a fine red cheek, flesh pale, juicy and rich; tree a fine grower, hardy and productive, a valuable orchard variety. Glands globose, flowers small—August.

Snow. Medium size, skin and flesh clear creamy white throughout; tree very productive, shoots greenish, distinct, desirable for preserving, free-stone. Glands , flowers large, Aug.—

Stump the World. Well known New Jersey variety, large, creamy white, with bright red cheek, flesh white, juicy and high flavored; tree vigorous and productive, free stone. Glands globose, flowers small, August—

Susquehanna. A very large and superb yellow peach from Pennsylvania, melting, rich and fine; tree vigorous, moderately productive, free stone. Glands reniform, flowers small, August—

✓ **Tong-Pa.** Not worth a place among the others even if hardy, as claimed, which it does not prove to be.

Wheatland. Large, roundish, skin golden yellow, shaded with crimson on the sunny side, flesh yellow, rather firm, juicy, sweet and of fine quality; tree vigorous, shy bearer here, does well in New York and California. Glands reniform, flowers small—Aug—

Late Season Peaches.

Bilyew's Late October. ✓ (Comet, Sweet October.) Large, greenish white, with bright red cheek, flesh white, sweet and excellent, a good shipper; tree a strong grower in orchard, productive. Glands globose, flowers large—October.

✓ **Fourteen Oz. Cling** ✓ (Judkens.) Large size, shaped like Old Mixon Cling, and higher colored, equal to that popular variety and ripening several weeks later; tree a fine grower. Glands reniform, flowers small, September.

Geary's Hold On. Medium to large, yellow, free stone, similar to Smock, though some days later in ripening.

Heath Cling. (White English, etc.) Fruit very large, oval, with prominent point, skin creamy white, very downy with faint blush on exposed specimens, rarely brownish, flesh white to the stone, juicy, sweet, exceeded by none

in fineness of flavor, keeps for some time after gathering; tree a handsome grower, with long leaves. Glands reniform, flowers small, September—

Henrietta. (Levy.) Largest size, color yellow, covered with bright crimson, flesh yellow and of high quality for so late a peach, ripening here the first week in October, keeps several weeks; tree moderate, productive. Glands reniform, flowers small, cling-stone.

Hoover's Heath. "Size large, extra specimens have measured 13 inches in circumference. Shape oblong, cream white, with a beautiful light blush on sunny side, flavor rich and delicious, a very fine shipper, with care can be sent to any part of the United States;" tree a good grower. Glands reniform, flowers large, September—October.

Indian Blood Cling. New from Arkansas. Large size, color dark claret, with veins, downy; flesh deep red, very juicy, fine flavor; tree an irregular grower. Glandless, flowers large, October.

Mammoth Cling of Arkansas. Largest size.

Muir. (California Origin.) "Large to very large, yellow, very free, flesh firm and very sweet, a favorite with both shippers and canners, and the best drying peach." Tree with long slender leaves,

✓ **Orange Cling.** (Runyon's.) California origin. Fruit very large, yellow, with a dark crimson cheek, rich, sugary and vinous flavor; tree a good grower, somewhat spreading. Glandless, flowers small.

✓ **Park's Late.** Similar to Heath Cling, but a week or so later, cling-stone.

Picquet's Late. Large size, yellow, bright red cheek, juicy, fine flavor, desirable late variety, small pit; tree strong grower, prolific bearer, free-stone. Glands reniform, flowers large, and resist cold snaps better than any of the late varieties—September—

Salway. An English variety. Large, yellow, with a brownish red cheek; flesh yellow, firm, juicy, fair flavor; tree a good grower. Glands reniform, flowers small, September—

✓ **Silver Medal.** Large, white, white flesh to the stone, free-stone; tree bears well. Glands globose, flowers small, —September.

Smock Free. Large size, light orange yellow, with a dull red cheek; flesh yellow, productive, more so than most yellow late sorts; tree somewhat irregular. Glands reniform, flowers small, September.

PEACHES—Continued.

- ✓ **Wonderful.** A new very late peach, "extra large, color light yellow, with a beautiful bright crimson blush, shaded and graduated into the yellow, scant bloom of a light silvery gray; flesh a rich, light golden yellow, very deep, solid, and of fine texture, very sweet, rich and luscious." Tree resembles Smock in growth and glands, said to ripen a week or ten days after Smock, and having remarkable keeping qualities.
- ✓ **New White.** Rather large, white, skin white, making it very desirable for canning; flesh white, tender, juicy, rich, vinous; tree a moderate grower; Glands reniform, flowers large.
- Stanwick.** A late variety, above medium size, roundish oval, skin pale greenish white, deep rich violet in the sun; flesh white, tender, juicy, rich.

Ornamental Peaches.

Blood Leafed. The young shoots of this tree have a blood-red color, fruit medium or below, light straw color; flesh white, clingstone; tree a good grower, useful and ornamental, reproduces its color to a marked degree from seed.

Double Flowering Red. (Camelia Flowering.) Flowers bright red, two inches across, very double, resembling roses—tree roses indeed, so to speak.

Double Flowering White. Flowers double, pure white; tree with green shoots very ornamental. A front yard with the foregoing creates a pleasing effect.

✓ **Golden Cuba.** Tree has yellow leaves, as beautiful as on the hickory tree in autumn, body of tree and shoots yellow, fruit of fair size.

Pyramidal. (Poplar Peach.) Tree fastigate habit, specimens on our grounds measuring 25 feet high; fruit medium size and equality. Glands reniform, flowers large.

Van Buren Dwarf and New White Dwarf, both very slow compact growers, rarely exceeding half a foot in growth after the first year, fruit medium size.

Willow Leafed. Tree a slender grower, with leaves like a willow.

• **Weeping Peach.** (Reid's.) Of drooping habit, must be worked standard height, bears fruit.

NECTARINES.

The habit of growth in tree resembles the peach; fruit has the distinction of a smooth skin, not so large as the peach, and rarely as fine flavored as our best peaches. Thrives wherever peaches will grow, but subject to the attacks of the Curculio, a small beetle that punctures the fruit. Requires the same treatment as the plum.

Early Violet. (Violet Hative.) Medium size, yellowish green with a purple

cheek, flesh pale green, melting, rich and highly flavored, free; tree a vigorous grower. Glands reniform, flowers small, July.

✓ **New White.** Rather large, white, skin white, making it very desirable for canning; flesh white, tender, juicy, rich, vinous; tree a moderate grower; Glands reniform, flowers large.

Stanwick. A late variety, above medium size, roundish oval, skin pale greenish white, deep rich violet in the sun; flesh white, tender, juicy, rich.

APRICOTS.

The Apricot is one of the most beautiful and delicious of fruits, but like the plum, is liable to be attacked by the Curculio, and requires the same treatment to prevent its ravages. The tree succeeds best and the crop is more certain when planted on a northern exposure, so as to escape injury from late spring frosts, as the buds and blossoms, starting too early in the spring, are often injured from that cause.

They are usually budded on the peach or plum stock, and sold at the age of 1 or 2 years. Since the introduction of the Russian Apricot (P. Siberica), there is no longer an uncertainty of obtaining some of the fruit over the greater part of this country, where the larger and finer sorts do not succeed in a sufficient degree.

European Varieties.

Breda. Small, rich orange yellow, good flavor; tree hardy and a prolific bearer where the European varieties succeed, ripens here the last of June.

Early Golden. Small to medium; flesh orange, juicy and sweet; tree hardy and productive, June—

Peach Apricot. (Finney.) Large, yellow, larger than Moorpark, flesh rich, juicy and high flavored, one of the best for drying, July.

Moorpark. Very large, roundish, yellow, brownish-red on sunny side, sweet, juicy and rich, the most desirable variety for canning and drying, July.

Royal. Large, oval, slightly compressed, dull yellow tinge, with red where exposed, flesh firm, juicy and vinous, a most desirable variety, last week of June here.

APRICOTS—continued.

Japan Varieties.

Bongoume, or Hubbard's Apricot. Described as very large, being about 5½ inches in circumference, of a beautiful golden color, commencing to ripen about the 10th of May in Central Texas; tree a vigorous grower and profuse bearer.

✓ **Hunahuma.**

✓ **Koume.**

Japan. Said to be very fine; tree a strong but crooked grower. Very large leaves.

Russian Varieties.

While these are not as desirable as the foregoing, yet they fill the place where the better varieties can not be grown. In time we hope to see a list of varieties that will equal the European varieties in every way except size.

✓ **Byram.** "Early yellow; size, about an inch in diameter."

✓ **Dr. Evatt.** "Early White."

✓ **Prieb.** "Medium Large Yellow."

✓ **Remer.** "Late Yellow. Said to be two inches in diameter."

✓ **Smith.** "Late Large White."

✓ **Sweet Russian.** [Originated here.] Round, size of Mariana plum, color yellow, with faint markings of red; the best flavored of all the apricots fruited with us this season, will not be for sale till fall of 1892; tree a fair grower, June—earliest of all.

✓ **Longfellow.** Originated here. Large (1½ to 2 inches long) for a Russian apricot, oblong, slightly compressed, surface orange, with a red cheek, flesh yellow, fine grained, half juicy, sub-acid, good, parts freely from the stone, kernel bitter; tree a free grower, most prolific bearer, has produced more fruit than all others on our grounds; very suitable for drying—July. Will have trees of this variety Fall 1892.

Numbers 3 and 8 are about an inch in diameter, trees very hardy and prolific.

for the plum. Many varieties—such as grow on peach stocks especially—do well on sandy soil, but are generally more affected by the ravages of the Curculio, a small, dark brown beetle which punctures the fruit in depositing its eggs, from which is hatched the destructive grub, and causing the fruit to drop off and rot. Sheets spread on the ground, and then giving the tree a succession of jars sufficient to make the Curculios drop, when they are easily destroyed, is practicable on small areas, but in the orchard the most effectual remedy is spraying. The time to commence either operation is as soon as the blossoms have fallen; repeat the operation twice a week at least, and continue so until the fruit is half grown. If jarring is practiced it should be done very early in the morning while the beetle is benumbed, when it readily drops.

SPRAYING.—This operation requires a pump that keeps the mixture constantly stirred. There are several kinds adapted to this operation; one is the Knapsack pump, which is carried on the back; the other is a larger pump suitable to place in a barrel—of forty or more gallons capacity—and loaded on a wagon while in use, to be hauled around by horses. The following formulas are now used: One-fourth (¼) of a pound of London Purple is sufficient for a barrel of fifty (50) gallons of water. For a less quantity of water—say an ounce of London Purple to twelve and a half (12½) gallons of water would be about the right proportion. Begin spraying soon after the petals have fallen, and continue the operation at intervals of a week until the fruit is half grown, and you need not fear having a crop of plums. In spraying Apricots, Nectarines and Peaches, use Paris Green not to exceed an ounce of Paris Green to fifteen (15) gallons of water. Be sure and keep the mixture constantly stirred. More experiments are needed to determine to what extent these poisons should be used.

American Varieties.

✓ **Caddo Chief.** Medium, bright red, good, ripens with the early cherries, a good one to commence the season with; tree a scraggy grower, fruit can be picked from off the ground, as the tree does not grow tall.

✓ **Centralia.** Illinois origin.

El Paso. From Southern Texas.

Forest Rose. Growth like Miner.

PLUMS.—PRUNES.

The Plum requires a heavy soil to attain its greatest perfection. Clay, with a mixture of heavy loam, is the best soil

PLUMS—PRUNES—continued.

Forest Garden. Large, nearly round, mottled red and yellow, juicy, very sweet and rich; tree a strong grower, —July.

Miner. Medium size, dark purplish red, juicy, adheres to the stone—September.

Newman. Medium size, smaller than Wild Goose, color bright red, adheres to the stone, August.

Pottawatomie. Medium, red, adheres to the stone; tree spurry, hardy.

Mariana. Fruit not as large as the Wild Goose, nearly round, bright light red color, adheres to the stone, sweet; tree is a rapid grower, rather free from thorns, forms a compact head, makes a good tree for shade, scarcely inferior to the Umbrella China, as stated by a southern nurseryman—July.

Quaker. Very much like Forest Garden.

Southern Beauty. From Texas, said to be very prolific.

Spaulding. Medium, yellowish green.

Wayland. Medium, bright crimson, firm, very good, adheres but slightly to the stone, which is small; tree vigorous, with long leaves, very prolific, the best late plum of the American class—October.

✓ **Roulette.** ✓ (Mexican.) Tree in habit of growth like the Wild Goose, said to be fine.

Weaver. Fruit large, purple, with a blue bloom; tree very hardy, even to the northern limits of the United States, August.

Wild Goose. Well known, large size, color deep red with blue bloom, flesh juicy and sweet, adheres to the stone; tree very vigorous, immensely productive. This variety is among plums what the Ben Davis is among apples—referring to the American class of plums—July.

Wolf Free. Prof. Budd says: "This has been fruited twenty-seven years in Iowa, is nearly as large as Lombard and a perfect free-stone, very early and wonderfully prolific bearer."

World Beater. A native; very late plum; "curculios sting it but do no injury." If it can beat the curculio it has a big job on hand—we shall see.

European Varieties.

Beauty of Naples. Medium to large, color greenish yellow, somewhat striped; tree hardy and a strong grower.

Bradshaw. Large size, reddish purple with blue bloom, flesh juicy, tree vigorous and productive, July—August.

Damson Freestone. Similar to Blue Damson except that it parts readily from the seed.

Damson Shropshire. Larger than the common Damson, and much esteemed for preserving, of good quality for eating; tree a good grower and bearer.

General Hand. Fruit very large, yellow, juicy, sweet and good; tree a fine stout grower, and very productive, August—

Imperial Gage. Large, green yellow when ripe, flesh juicy, rich and delicious; tree a good grower, one of the most productive of all in localities where these class of plums succeed, August—

Green Gage. Medium, round, green, becoming yellow green, with reddish brown dots, flesh pale green, melting, juicy, sweet and rich—August.

Lombard. Above medium size, violet red, flesh yellow, juicy and pleasant, of good quality, and a great bearer; tree hardy, productive, popular—August—

✓ **Mo. Apricot.** ✓ (Honey Drop.) Said to be an improvement on Golden Beauty and of best quality, with pure Apricot flavor.

McLaughlin. Large, greenish yellow, sugary luscious, with a fine flavor; tree vigorous and productive—August.

Monroe. Medium size, greenish yellow, flesh firm, rich and sweet; tree vigorous, bears abundantly, September.

Moore's Arctic. The fruit grows in large clusters, large, dark purple, thin skin, pit small, flavor very fine, both for preserving and for dessert; tree not as hardy as claimed, August—

Shippers' Pride. A large blue plum, very hardy and productive and possessing remarkable qualities for market, September.

Smith's Orleans. Large, reddish purple, very juicy, rich and vinous flavor

PLUMS—PRUNES—continued.

Washington. Large, round, greenish yellow, very sweet and luscious, separates from the stone.

✓**White Honey Damson.** This valuable fruit is the usual size and shape of a well grown Purple Damson, but the skin is white, becoming yellowish when fully ripe; flesh yellow, sweet and excellent. It dries readily and is a most valuable acquisition for canning and preserving.

Yellow Egg. Very large size, long, rather acid until very ripe, when it becomes sweet, fine for cooking, very good for canning—August—

Yellow Gage. Large, yellow, oval, flesh yellow, juicy and rich; tree very vigorous and productive—August.

Japan Varieties.

Botan. (Yellow-Fleshed Botan. Abundance of some.) Large, roundish, often pointed, yellowish red, with a white bloom, flesh yellow, rich, sub-acid, juicy and delicious, does not part readily from the stone as has been stated; tree a handsome grower, with large leaves which it retains as well as our native plums. Ripens here the first week in July, the fruit is borne close to the body and larger limbs of the trees, wholly unlike the illustrations generally employed to represent the fruit on the trees. Should be in every garden or planting.

Burbank. We secured this variety direct from Mr. Luther Burbank, of California. Mr. Burbank says that it is the best of all Japan plums, and describes it as follows: This fruit is usually from five to five and a half inches in circumference, and varying less in size than any other Japan plum, nearly globular, clear cherry red, with a thin lilac bloom. The flesh is a deep yellow color, very sweet, with a peculiar and very agreeable flavor. The tree is vigorous, with strong, upright shoots, and large and rather broad leaves, commences to bear usually at two years of age. Last summer (1888) fifty-five large and perfect fruits ripened on two year old tree which was standing thick with others in nursery row.

Chabot. Fruit very large—double the size of Wild Goose and more pointed—greenish, with purplish red on exposed side, light blue bloom, flesh yellowish, meaty, quality good; tree a very strong grower and an enormous bearer. Ripens here middle of July, ad-

heres to the stone. Where the Kelsey is too tender this variety will surely fill its place. In sections where the European plums do not succeed, and something besides our native plums is wanted, try these Japan varieties and you will not be disappointed.

Hytankayo. A Japan variety, resembles Kelsey, but ripens a month earlier, described as large to very large, commences to ripen immediately after Wild Goose, larger than Wild Goose and of meaty character, much finer and better shipper, conical in shape, color deep purplish red, slightly melting when over ripe, flavor good, sub-acid; trees inclining to dwarf. Most valuable Japan plum yet introduced.

Ogon. Large, round, golden yellow at maturity, flesh yellow, firm, with a peculiar sweetness, quality good; tree a free grower, shoots yellowish. Ripens here last week in June, the earliest of the Japan varieties.

Kelsey. The pioneer of the Japan plums. Was brought into notice in 1891 by the late John Kelsey, of California, after whom it was named. "Fruit very large, heart-shaped, being from seven to nine inches in circumference and specimens weighing six and a half ounces each, color a rich yellow, nearly overspread with bright red, with a lovely bloom; flesh firm, meaty, rich, of excellent quality;" tree a fair grower, but not stocky, with long, willowy, light colored shoots, August—September.

Long Fruited. A vigorous grower, with large thin leaves, oblong fruit.

Masu, or Large Fruit. "Round, with pointed and curved apex, orange yellow ground, covered with light red, and a bluish bloom, flesh yellowish, melting, juicy, sub-acid, second quality, nearly free-stone, maturity end of June" in Georgia; tree a fair grower with very small leaves.

Prunus Simoni. (Apricot Plum.) "This remarkable plum came from northern China. The tree attracts attention by its vigorous, upright growth, and the form and color of its leaves. The fruit differs from any other in cultivation, large, tomato shaped, cinnamon red color, the flesh is firm, rich, sweet aromatic, and delicious pineapple mingled with banana flavor." Tree an upright grower, long hanging leaves, distinct, July.

Satsuma. (Blood Plum.) New, fruited in California in 1887. Fruit averages

PLUMS—PRUNES—continued.

about 2½ in. in diameter. The shape is nearly round and slightly sutured on the one side, surface dark red under a thick bloom. The flesh is dark purplish red, which has caused the name of "Blood Plum of Satsuma," as given by some. The stone is very small and pointed. Trees one year old passed through the winter of 1887-8 on our grounds without the slightest injury.

True Sweet Botan. Said to be superior to the common Botan. The tree a marvel in prolificness, fruit reddish purple on sunny side, large, solid and said to be curculio proof.

Yellow Japan. Large, yellow, with a red cheek, round with suture, tree the strongest grower, ripens July 15th.

Prunes—Plums Suitable for Drying.

Coe's Golden Drop. Large size, pale yellow, spotted with red in the sun, flesh firm, rich and juicy; tree a strong grower. Can be dried as a prune. Thought by some to be same as Silver Prune; we have them both and propagate them separately.

French Prune. (Petite Prune d' Agen, Burgundy Prune.) Medium size, oblong, egg shaped, reddish purple, rich sugary, parts from the stone. Tree a very good grower, requires a deep, strong soil, bears immense crops. Most extensively planted for prune making in California.

German Prune. (Common Quetche.) Fruit long oval, large stone, swollen on one side, skin purple, with a thick blue bloom, flesh firm, greenish yellow, very sweet and pleasant as a fresh fruit. Tree a free grower. This variety does not grow on peach stocks, shoots smooth, a good and regular bearer, freestone.

✓ **Holman Prune.** Discoverer's description: An accidental seedling discovered at Springfield, Mo., in an enclosure where a number of the Prunes, Gages, Eggs and others of the best plums were fruiting. Beauty and size of foliage attracted first attention. It was at once put on trial and found to be a most vigorous grower, producing heavy straight shoots of young wood which have always gone through the winter without injury. It is now fruiting upon the grounds of D. S. Holman, its discoverer, and is found to be a valuable acquisition. Fruit large, light yellow or cream in color, parts

readily from the seed (which is small and pointed at both ends, is firm, meaty, sweet and delicious, and withal a good shipper when fresh from the tree, and an excellent prune when dried).

Kelsey Prune. Esteemed in California, distinct from Kelsey Plum.

Italian Prune. (Fellenberg, Large German Prune, Swiss Prune.) Under all these names it has been introduced. Medium size, oval, dark blue, very rich and high flavored, parts from the stone, one of the best for drying, September. Grows well on peach or plum.

Pond's Seedling. (Hungarian Prune.) A magnificent English plum, light red, changing to violet, flesh rather coarse; tree vigorous grower, abundant bearer, September.

Prune de Agen. (Robe de Sargent.) Fruit medium to large size, oval, skin deep purple appearing almost black, blue bloom, flesh greenish yellow, sweet, rich, adheres slightly to the stone, shrinks much in drying. Tree with narrow leaves, does not grow on peach—August—

Silver Prune. (Oregon Silver Prune.) "A seedling from Coe's Golden Drop, which it much resembles, but is much more productive, one tree of the Silver Prune producing more fruit than five of Coe's Golden Drop," September.

Tragedy Prune. New, fruit medium size, skin dark purple, flesh yellowish green, very rich and sweet, parts readily from the stone, the earliest to ripen, June.

QUINCE.

A valuable fruit, not half appreciated. There is perhaps no fruit in which more money can be made off of a small area than off the Quince. Planted at 10 feet apart; 430 trees to an acre. Top dress with leached ashes.

Angers. Large, yellow, a strong growing sort, an abundant bearer, October.

✓ **Chinese Quince.** ✓ (Hong Kong.) New, an extraordinary fruit, oblong, immense size, often weighing several pounds apiece, growth distinct, not the P. Japonica.

Champion. Fruit large size, obovate pyriform in shape, of a lively yellow, very showy and handsome, flesh ten-

PLUMS—PRUNES—continued.

der for a quince, fine flavor, odor equal to the Orange variety, October—

Meech's Prolific. Very large, handsome fruit, pear shaped, skin smooth, bright orange yellow, very fragrant, cooks tender.

Orange. Large, roundish, color bright, golden yellow, cooks well, of excellent flavor, valuable. Tree very productive. —October—

Rea's Mammoth. Seedling of the Orange Quince, larger, but not as productive.

GRAPES.

No fruit except the strawberry comes into bearing as soon after planting as the grape; and no fruit is more conducive to health. Steep hill-sides may be utilized and become the most profitable portions on the place. Southern exposures being the best for the grape. Dry soil for the grape is every where conceded. Any soil not thoroughly drained should be deeply worked. Plant about eight feet apart each way. Posts and wire form the best and cheapest trellis. Prune so as to admit the sun to the fruit. Take the canes off the trellis and cover during the winter in very cold sections, remembering that only new wood is to be cared for, cutting all old wood away, as the best fruit is obtained from new wood or canes.

Hardy Native Grapes—Native Black Grapes.

Champion. (Talman.) A large sized, very early black grape. Bunch medium to large, compact, skin thick, flesh sweet, juicy, foxy. Vine a rank grower, hardy and productive, ripens first week in August.

Clinton. A medium sized very black variety, bunch medium, very compact, not often shouldered, skin tough, flesh juicy, spicy, quite sub-acid until very ripe, splendid for wine making. Vine a rank grower, needs considerable cutting in when it becomes very productive.

Concord. Is still the grape "for the million," decidedly the most popular grape in America. It is among grapes what the Ben Davis is among apples. Black, bunch large, shouldered, compact, berries large with a very rich

bloom, skin tender but carries well, flesh juicy, sweet, pulpy, a strong grower, hardy, healthy foliage and very productive. August 25th in average seasons. Main crop first week in September.

Cynthiana. (Red River.) A black wine grape, bunch medium long, shouldered, compact, berries small. Vine very vigorous grower and healthy. Ripens last week in September. Considered by some a fair table grape so late in the season. For covering arbors this variety should be used.

Early Victor. New black grape, said to ripen very early and to be of fine quality, sweet, pleasant and not foxy. Vine a strong, healthy grower.

Hartford. An early black grape of but moderate quality, ripening a week before the Concord. Bunch and berry large, flesh sweet, pulpy, somewhat foxy.

Ives. (Ives Seedling.) A black variety that colors up very early, but is not good until ripe, which is after the Concord, when it is a good market grape, makes a good red wine, and is a fair table grape. Bunch and berry medium, compact, skin thick and tough, sweet, with considerable pulp. Vine vigorous, healthy and hardy, productive, very nearly exempt from rot.

Moore's Early. A large black grape of the Concord type, the entire crop ripening most generally before the Concord, bunch medium, berries large with blue bloom, flesh pulpy, of medium quality. Vine hardy, moderately productive, better as it attains age. Planted extensively as a market sort.

Norton. (Norton's Virginia.) A small black grape resembling the Cynthiana, some say it is identical, others not; will not grow from cuttings, while Cynthiana will produce about eight per cent from cuttings. Bunch long, compact, shouldered, flesh tender and vinous. Vine very strong grower, retains its foliage very late, making a fine arbor plant. Ripens with Cynthiana. Used principally for wine making.

Worden. A large black grape, said to be larger and better than the Concord, but it seems to have a hard time of getting ahead of that old stand-by. Bunch large, often shouldered, compact, skin thin, quality a little if any better than the Concord, ripens a few days earlier than the Concord. Vine vigorous, healthy and very productive.

GRAPES—continued.

Hardy Native Grapes—Red and Reddish Purple Colored Grapes.

Agawam. (Rogers No. 15.) A large pea or amber colored grape ripening about with the Concord. Bunch loose, shouldered, skin thick, flesh pulpy, juicy, sweet and rich, aromatic flavor. Vine a strong grower.

Brighton. A medium to large dark red variety, resembles Catawba in color, bunch medium, rather long, compact, shouldered, skin thin, flesh tender, sweet, very little pulp, equal to Delaware, and ripening with it. Vine vigorous, moderately productive, mildews in unfavorable seasons.

Catawba. A large, late, dark red variety, often loose, shouldered, skin thick, tough, flesh with considerable pulp, vinous and refreshing flavor. Vine vigorous, hardy, productive in favorable localities.

Delaware. A small to medium large red variety, the standard of excellence. Bunch small, compact, rarely shouldered, skin thin, with violet bloom, flesh juicy, very sweet and refreshing. Vine hardy, moderate grower, productive, should find a place in every garden. Ripens August 20th here in average seasons, about five days ahead of Concord.

Dracut Amber. A large, very early red or amber colored variety. Bunch large, flesh sweet but foxy. Vine very hardy, productive, often producing a light second crop where the season is long, August 10.

Goethe. (Roger's No. 1.) A large greenish yellow tinged with red or amber colored variety, somewhat resembling the Malaga grape, skin thin with sufficient firmness, flesh sweet, juicy, with good flavor, the best of all the Rogers type for the west. Vine hardy, strong grower, and productive.

Moyer. A new red variety from Canada, very much like the Delaware in foliage, vine very little if any stronger in growth. Bunches small, scarcely equalling the Delaware in any thing but size of berries.

Wyomized Red. A very early medium sized red variety. Bunch small but compact, skin bright red, sweet, very agreeable were it not for the slight foxy odor apparent when first gathered.

Wells. (Well's Seedling.) A new amber colored variety. "The fruit is large, as large as Pocklington or Goethe, oval shape, bronze or dark wine color, sweet and very aromatic, a good shipper and keeper."

Native White Grapes.

Elvira. A medium sized variety of the Taylor class. Bunches very compact, skin thin, very sweet and juicy, fine for the table, makes very fine white wine. Vine vigorous and productive.

Martha. A white variety of the Concord class, pale yellow when fully ripe. Bunch medium, shouldered, berries medium, skin thin, tender, very sweet, quality equal to Concord. Vine healthy and hardy, moderate grower, ripens with Concord.

Niagara. Another white variety of the Concord type. Bunch large, somewhat shouldered, compact, berries large, skin thin, flesh with considerable pulp, tender, sweet. Vine a stronger grower than the foregoing, but does not hold its foliage as well here, ripens with Concord.

Pocklington. (Golden Pocklington.) A Concord seedling which is becoming more popular with each succeeding year. Bunch large, shouldered, berry large, roundish, light golden when ripe, flesh juicy, sweet, pulp tender, slightly foxy. Vine a good grower, healthy and hardy, equal to Concord in that respect and nearly as productive, August—

STRAWBERRIES.

"If I live to see another Spring I will surely set out a patch of Strawberries." Such expressions are often made during the Strawberry season, and why not plant a patch, when there is no fruit that so readily responds with a rich reward for so little outlay. Strange as it may seem, there are many people, especially in the country, who know nothing about strawberries. No fruit is so free from objectionable features as the strawberry. No thorns, no briars, easy of culture, easy to gather, and the most refreshing of all fruits, coming in before any other. Set plants in rows four feet apart and one foot apart in the rows. Cultivate well, and by fall the plants will have matted the ground well over. Mulch lightly in winter to prevent plants from heaving.

STRAWBERRIES—continued.

It also prevents the berries from becoming soiled.

Pistillate (flowers without stamens) varieties are designated by a letter P, and requires a staminate flowering variety planted every fourth or fifth row for best results. All varieties not designated by the letter P, are perfect, or staminate flowering, and can be planted alone, or as above indicated.

Captain Jack. Fruit medium to large, very uniform, color darker red than the Wilson, which is said to be its parent, possesses the same shipping qualities of the old standard sort, plant has dark, glossy, green foliage, but does not grow very tall.

Charles Downing. Fruit medium to large, conical, deep scarlet, extra fine quality, rather soft for market, good for near by market.

Crescent. (Crescent Seedling, P.) Fruit medium to large, color bright scarlet, colors all over at once, making it the most attractive market berry; plants are slender but their growth is very rapid, covering the ground with runners in a short time to the exclusion of weeds and grass. It is truly the most wonderful in point of productiveness, six, eight, and even ten thousand quarts having been produced by some growers here off of an acre of ground. If picked daily, it is one of the best carriers to market, otherwise it will become soft.

Crystal City. Was the earliest until the Michels came in to claim that honor. In flavor it is nearer like that of the wild strawberry than any other.

Cumberland Triumph. (Jumbo.) Very large, round, pale red to scarlet, of excellent quality, rather soft for shipment some seasons. Valuable as a home berry, foliage very large, plants stand extremes of heat and cold, and passes through droughts better than most sorts.

Glendale. Fruit large, conical, large calyx, rather acid flavor, late.

Jersey Queen. (P.) Fruit very large, bright crimson, not firm enough for market, but should be in the garden, quality very best.

Jessie. On rich soil this variety will do, but on any other it will prove a disappointment, fruit large, red color, quality variable, plant a strong grower, blooms earlier than most all others,

which is against it. We believe it will not be in the lists many years. Sharpless is better with us.

Gandy, or First Season. This is the latest of all large good berries, being firm enough to ship well, and good enough for anybody. The plant has enduring qualities, and if it will only prove productive enough will surely be a prize. We say plant it largely, we are doing so.

Kentucky. A late variety that has held its place in spite of all the new late sorts. Its productiveness on almost all kinds of soil makes it a favorite. Large in size and finely flavored, but rather soft for market, plant tall, vigorous grower.

Lady Rusk. New. "The fruit is of large size, several days earlier than the Crescent, and is its superior in every respect, holding size well throughout the entire picking, and above all, one of the most productive varieties." Such is the description as given by the introducer, who is a large grower of strawberries for market.

Michel's Early. (Osceola.) New. Of all the recent introductions this is one of the varieties that is destined to take the front rank among early strawberries. There is practically no more use of the Crystal City, as this was ripe with the first of that variety, and being nearly as large as the Crescent, with a scarlet color, with orange, renders it among the attractive varieties sought for on the markets. Plant robust, foliage large on tall stalk, protecting the blossoms from frost in a marked degree. It is one of the best varieties to plant, either in separate rows or among pistillate sorts, being rich in pollen.

Sharpless. Fruit large, irregular, color crimson on exposed surface, balance pale greenish, not a desirable color, quality very good, moderately firm for market the first pickings, becoming soft before the season is two thirds over. For home use it will find favor a long while yet.

Warfield. (No. 2.) P. Originated in Illinois. Fruit of medium size, good form, glossy dark red color, fair to good quality, very productive, best for canning.

Wilson's Albany. The pioneer of the strawberry craze and still held in esteem by those who prefer an acid flavored berry, a standard as a shipping berry, not as productive as the newer varieties.

SMALL FRUITS.

BLACKBERRIES.

Early Harvest. (True.) One of the earliest varieties, fruit medium size very fair quality, productive, not entirely hardy, plant an upright grower, 1st July.

Erie. Very large, round, resembling Lawton somewhat, berry nearly round large, firm, of excellent quality, plant a strong grower, hardy,—July—

Early Cluster. Large, productive, not so hardy as Snyder, nor as early as Early Harvest.

Kittatinny. Large size, conical, glossy black, still the most valuable sort for general planting, must be treated to prevent rust, when it is the most profitable of all blackberries, ripens middle of July here.

Snyder. Medium size, nearly round, of fair quality, it is so enormously productive that it should be thinned, when the berries are much improved in size, entirely hardy and free from rust,—July—

Stone's Hardy. From Wisconsin, medium size, hardy and productive, not as good as Snyder.

Taylor's Prolific. New, said to be of great value, berries large, of highest quality.

Wilson's Early. Large size, oblong, black, firm, rich, sweet and good, canes do not grow as tall as other sorts, fruit ripens all at once so to speak.

Wilson Junior. Largest size, borne in large clusters, berries sweet as soon as colored, productive, valuable for market, ripens before Snyder.

White. (Crystal White.) Berries white, variable in size owing to imperfect flowering, sweet and good, canes greenish colored, not hardy north.

DEWBERRIES.

Lucretia. A low growing, trailing blackberry. This fruit is as large as the larger sorts of blackberries, and ripens with the raspberry, plant is hardy and productive.

Evergreen Blackberry.

Oregon Late. "Superior to almost every other berry in sweetness and fla-

vor, the fruit is of medium size and ripens in the fall, blossoms in July. after all other berries are gone. The top does not die down and should not be shortened in, it will grow and increase year after year like a grape vine, hardy here and considered a great acquisition.

CURRANTS.

Crandall. Origin Kansas. In form of bush similar to our common Missouri flowering currant (*Ribes Missouriiana*) fruit bluish black, and in size from one fourth to one half inch in diameter; flavor not as good as our old and tried varieties. Valuable where the better sorts do not succeed.

Cherry Currant. Very large, red, bunches short, fine grower and bearer.

Fay's Prolific. Very large, similar to cherry, variable as to size of clusters, possibly not as acid as others; has been over praised.

Red Dutch. The well known upright growing variety, of medium size, good quality, productive.

Versailles. (La Versailles.) Large, bunch long, handsome and productive.

Victoria. Bright red, medium size, bunches long, quality good; very vigorous; the most productive here; valuable where others do not succeed well.

White Dutch. An old, well known variety, small in size, good quality.

White Grape. Large, sweet, plant of low spreading habit, very productive.

GOOSEBERRIES.

The Gooseberry thrives best on a deep rich soil; plant three feet apart in rows, and rows four feet apart, which will admit of easy culture.

Downing. An upright, vigorous grower, very spiny, productive, fruit very large—larger than Houghton—oval, whitish green, skin smooth, flesh soft and juicy, very good.

Houghton. An old well known sort, medium size, pale red, free from mildew. Plant is vigorous, having slender branches, very productive, sweet, good.

Smith's Improved. Large, pale yellowish green, sweet and of excellent quality. Plant vigorous, healthy and hardy.

GOOSEBERRIES—Continued.

Industry. An English variety, very large, oval, dark red, with an agreeable flavor. Plant a good grower when once established; difficult to transplant.

Golden Prolific. An American seedling of the English type said to be free from mildew. Fruit large, deep golden yellow, very handsome and attractive, of excellent quality; hardy and a good grower.

✓ **Oregon Champion.** Fruit large, light green, hairy, sweet and very good, late.

✓ **Bennett's Eureka.** Originated in Oregon.

RASPBERRIES.

Raspberries succeed well on any good land that will grow field crops. This fruit ripens directly after the strawberry, is very delicious in flavor, and many uses are made of them. The list of varieties embraces a period of three to four weeks. Plant in rows three feet apart, and the rows six feet apart so as to admit of easy access in cultivating and gathering.

Red and Yellow Varieties. (Thimble Berries.)

Cuthbert—Or Queen of the Market.

Fruit large, deep red in color, fine in flavor, firm enough for market, but not early; the best of the red, hardy and prolific bearer.

Golden Queen. A seedling, if not a "sport" of Cuthbert, and equal to that popular variety in every respect, and having an attractive appearance finds a ready sale as a market berry, commanding the top prices.

Turner:—Southern Thornless. The canes of this variety are free from thorns above a foot from the ground, and do not interfere with the picking as in all other varieties. Berry red, medium size, tender, juicy, sweet, very hardy, ripens early and continues in fruit a long time during the season.

Purplish Red and Yellow Caps:

Shaffer Colossal. A very large purple berry, ripening late, just before blackberries come in. It is a splendid sort, either for canning or drying. Plant very vigorous, grows from cuttings or tips.

Yellow Cap. New. This variety originated with us. Size medium to large; yellow, changing to salmon; firm and of good quality, medium season. Canes very strong, yellowish colored, hardy here.

Black Cap Varieties.

Gregg. This is decidedly the largest Black Cap that we have ever seen, far surpassing in size the famed Mammoth Cluster, averaging, when grown side by side, with the same treatment, from one-fourth to one-third larger.

✓ **Hopkins.** Resembles somewhat, in fruit and cane, the old Mammoth Cluster, but an improvement upon it. Nearly as early as Doolittle, very much larger and of fine quality. Canes very vigorous, but not as stocky as some, healthy and productive. One of the best early black caps.

Mammoth Cluster. (McCormick.) Of all the black cap family, this has proved one of the most wonderful in productiveness, size and uniformity of fruit. Fruit large, and holds out large to the very last picking; black, with a rich purplish bloom; very juicy, high flavored and delicious.

Ohio. The greatest producer among black caps, and for canning or evaporating claimed to be the most profitable of all sorts; berry not quite as large as Gregg, but of finer quality, and the plants more hardy and will bear more successive crops.

Tyler. (Souhegan.) A leading early market variety, ripening its entire crop in a very short time; medium size, very black without bloom, flesh firm and sweet. Plant vigorous, strong, hardy.

MISCELLANEOUS FRUITS AND NUTS.

Almonds, Hardshell. Hardy variety, with a large kernel, the fruit has the appearance of a half grown peach, which bursts open when full grown, disclosing the kernel. Tree resembles a peach, flowers large, blossoms before the peach, quite ornamental.

Almonds, Soft Shell, Variety, I. X. L. Originated with A. T. Hatch, Suisun, California. Large, soft shell, regular heavy bearer in California.

MISCELLANEOUS FRUITS AND NUTS—
Continued.

Almond, Ne Plus Ultra. "A large long soft shell, heavy bearer, another of Mr. Hatch's seedlings. These are greatly superior to any of the old varieties."

Almond, Princess. A very strong growing variety.

Berberry. Common American. This variety bears scarlet fruit, tart, September.

Berberry, Purple Leafed. Very ornamental, fruit and foliage purple.

Chestnuts, American Sweet. This variety is found over a large extent of country, and is easily grown if transplanted while the tree is small, bears at an early age, usually at eight years, often on some trees earlier, makes a handsome shade tree, and grows rapidly.

Chestnuts, Spanish or Maroon. Yields larger nuts than the foregoing but not as sweet.

Chinquapin. (Dwarf Chestnut.) Trees vary as to growth and bearing, some bear nuts when only four to six feet high, while others grow to be large trees although they bear quite young. Fruit resembling an acorn, very sweet, by some preferred to the Sweet Chestnut.

Figs, Brown Symrna. Very fine, large, brown fig, bears abundantly.

Figs, Brunswick.

✓**Figs, Col. Cheeney.** From Mr. L. Burbank, California.

✓**Figs, Orleans.** From Mr. Burbank, California.

Figs, Celestial.

Figs, White Adriatic. Fruit large, nearly white, delicious, a fine grower.

Hickory. (Shellbark, *Carya Alba*.) Small, thin shell, and very sweet, hardy.

Huckleberry. (Blueberry.) This fruit should receive more attention.

Mulberries. (Downing Everbearing.) Fruit large, blue black flesh, juicy, rich, sugary, with a sprightly vinous flavor. Tree a vigorous grower, beautiful as a lawn tree, yields large berries covering a space of three months.

Mulberries, Hick's Everbearing. Continues in bearing longer than the ordinary black or white mulberry, sometimes covering a space of several months. Tree a very fine grower, should find a place in every yard.

Mulberries, Dwarf. A very short, stocky tree with large foliage, novel.

New American. Fruit of the largest size, black, delicious flavor, an attractive tree with very large leaves, hardy.

Mulberries, Russian. Not as desirable a fruit as our common varieties. Fruit too small to be of value, tree valuable for fuel and posts.

Persimmon. (*Diospyros Virginiana*.) Native, fruit is like a plum, astringent, when fully ripe it becomes mel-low with a pleasant sub acid flavor.

Persimmon, Japanese. (*D. Kaki*.) Fruit as large as a medium sized tomato. There are many varieties. This remarkable fruit does well all through the south.

DAIDAI MARU. Round, red, tender and juicy.

HACHIJA. Very large, oblong, vermilion, very fine.

HYAKUME. Very large, round, vermilion, delicious, late.

KUOKUME. Medium to large, flat at stem, fine.

TANE NASHI, or SEEDLESS. Large, oblong, yellow, fine for drying.

YEDOICHI. Large, round, flat at stem, vermilion, best quality.

YEMON. Delicious when ripened in drawers or boxes covered tightly.

Pecan. (*Hickoria Pecan*, *Carya Olivaeformis*.) Found growing in the Southern and Western states and Indian Territory. Texas producing the largest nuts, while those from the Territory are quite as large, and produce a hardier tree when grown from the nuts. Both prove hardy here, and we believe will grow wherever the Hickory will thrive. Nuts oblong, smooth, kernel sweet and delicious. Our stock is from the best selected large nuts. Trees bear at the age of ten to twelve years. A fine ornamental tree.

Sarvis, Dwarf, Juneberry. A low growing bush with dark glossy green leaves, fruit is borne in clusters after the manner of the currant, in size it

MISCELLANEOUS FRUITS AND NUTS—
Continued.

equals the Crandall currant, color reddish purple to dark purple when fully ripe, approaching somewhat the Huckleberry in flavor, and by many sold as as such. The seeds of the true Huckleberry (Blueberry) are not larger than tobacco seeds, while the seeds of the Sarvis, or Juneberry, are as large as raspberry seeds. Plant is very hardy, bears profusely in June.

Walnut, Black. The common variety known all over as the one producing the most beautiful furniture wood. The nut is large, fine flavored, very rich. Tree a vigorous grower.

Walnut, White. (Butter Nut, *Juglans Cineria*.) Nuts of this variety differ from the black, in being longer, oily, wood white.

Walnut, Japan. (*Juglans Sieboldiana*.) From Northern Japan. The nuts grow in clusters of fifteen or twenty, have a thicker shell than the English walnut, though not as thick as the black walnut. The meat is sweet, of the very best quality, flavor like butternut, but less oily. Tree is a vigorous grower, makes a fine shade tree.

GARDEN ESCULENT
ROOTS.

To prepare a bed for planting, the soil should be dug deeply and well mixed together with well rotted manure or compost. Plant in rows two feet apart. In the rows the plants should not exceed a foot apart, and planted about four inches deep. Cover on approach of winter with manure, and fork the beds over lightly early in the spring.

ASPARAGUS.

Conover's Colossal. This variety takes the front rank in it being much superior in size and quality to the old sorts.

Moore's New Cross-Bred. This new Asparagus is the result of careful cross-breeding between the great improved and another excellent variety. It retains the head close until the stalks are quite long, is of uniform color, while for tenderness and quality it is unparalleled.

RHUBARB, OR PIE PLANT.

This deserves to be ranked among the best early fruits in the garden. It affords the earliest material for pies and tarts, continues long in use and is valuable for canning. Make the border very rich and deep.

Myatt's Linnaeus. Large, early, tender and fine, not surpassed.

Seedlings. Grown from seeds of Myatts, variable as to size and quality.

Ornamental Department.



Within the last few years more attention has been paid to Ornamental Tree planting and many have been the ways of laying out or planting. Most gardeners mass or group the different varieties of trees or shrubs now, and it is conceded to be the best way, as the desired effect can be produced either in growth of tree, either upright or drooping, height of tree, color of flower, or shape of foliage and color of bark, etc.

Our list embraces a great number and variety, and we are enabled to supply nice collections for PARKS AND PRIVATE GROUNDS.

There is much real pleasure in having fine trees, shrubs and flowers surrounding the home. Then there is a money value besides. If you try to purchase such a home you will soon discover that an increased price placed thereon is owing to the trees and plants. On a new place there is opportunity for the skill of the planter to come into play, and while he may make some mistakes, yet it is not at all to be compared to misplaced buildings and the like.

Large growing trees should be planted on the boundaries, leaving room for evergreens, shrubs and flowers, and a sufficient space for a lawn, according to the size of the grounds. Keep the shrubs and trees mulched (if you cannot cultivate) the first two seasons, after which they will bear the turf growing about them. Pruning should be carefully done, if at all, and more to keep the tree well balanced, than to bring it into some unnatural or fancied form.

DECIDUOUS TREES.

ASH. (FRAXINUS.)

American White. A rapid growing native tree, valuable for planting on the street or in parks, planted extensively for timber. Its chief use is in the manufacture of agricultural implements.

Punctata. An American variety, with gold-blotched leaves, makes a beautiful contrast with other trees.

American Black. (Sambucifolia.) A small or medium sized tree with fine foliage.

Flowering Ash, European. (F. Ornus.) Flowers greenish white, fringe-like, produced early in June in clusters on the ends of the branches.

Gold Barked Ash. (Aurea.) The bark of this tree remains of a golden yellow making it a conspicuous object on the lawn at all times.

Rufus Haired Ash. (Rufa.) An American variety, of upright growth, with

dark green single leaves, occasionally in threes.

Blue Ash. (F. Quadrangulata.)

Dwarf Ash, Nana. A variety of very dwarf habit, with dark green leaves.

Single Leafed Ash. (Monophylla.) A fine tree with single broad leaves instead of pinnate foliage such as the ash generally have.

Sharp Leafed Ash. A fine growing tree with sharp, narrow leaves of a most attractive green color, worthy of a place in every collection.

Variiegated Ash. A most attractive sight to behold this tree with its finely variegated foliage, as it develops, becoming green at the close of the season.

Willow Leafed. (Salicifolia.) A variety with narrow wavy leaves.

Pyrus Sorbus. (American Mountain Ash.) A tree of rapid, but coarser growth than the European variety, pinnate foliage.

DECIDUOUS TREES—Continued.

European Mountain Ash. (*P. Aucuparia*.) A fine hardy tree, with pinnate foliage, produces large clusters of bright scarlet berries in July, which remain till winter.

Oak Leafed Mountain Ash. (*P. Quercifolia*.) Tree pyramidal habit, leaves are downy white color underneath, and very deeply toothed on the margins.

Balm of Gilead. (See Poplar.)

BEECH. (*FAGUS*.)

American Beech. (*F. Ferruginea*.) A large native tree, smooth bark, horizontal spreading branches, coarse toothed foliage.

Purple Leafed Beech. (*F. Purpurea*.) A beautiful tree, which in the early part of the season has purple foliage, later in season changing to crimson and lastly to purplish green.

BIRCH. (*BETULA*.)

American White Birch. (*B. Populifolia*.) An American species of rapid growth, with triangular, taper pointed smooth and glossy leaves,

European White Birch. (*B. Alba*.) A graceful tree, suitable for any lawn, has silvery bark and slender branches, grows quite erect while young, assuming an elegant drooping habit as it attains age. The Birches are all elegant feathery trees, too little planted.

BOX ELDER.

Box Elder. Ash Leafed Maple. (*Acer Neugundo Fraxinifolium*.) A rapid growing tree, leaves and branches light green. Tree very hardy, said to be equal to the Sugar Maple for sugar making.

BUCKEYE PAVIA. (*ÆSCULUS*.)

Small Buckeye. (*P. Rubra*.) A small sized tree, branches smaller than the *Flava*, more generally known as Big Ohio Buckeye, or Horse Chestnut, flowers brownish red, buds out early in the spring.

CATALPA. (*INDIAN BEAN*.)

Catalpa Bignonioides. (Syn. *C. Syringae-folia*, Common Catalpa.) Native of the Southern States. A rapid but irregular growing tree, with very large heart shaped leaves and pyramidal clusters of white flowers with purple dots around the throat. Blooms middle of June, very fragrant.

Western or Hardy Catalpa. (*C. Speciosa*.) A variety found growing in the west, growth rapid, more upright than the Common Catalpa, blooms earlier, very ornamental, valuable for timber, fence posts, railroad ties, etc. Blooms first half of June, when few trees are in bloom.

Koempferi. (*C. Koempferi*.) Introduced from Japan by Siebold. A species of rapid growth, with deep green, glossy foliage, flowers fragrant, cream colored, speckled with purple and yellow, not as large as those of *Syringae-folia*, pinnacle also is smaller and more loose. seed pods long and very narrow, two weeks later than *syringae-folia*, very hardy.

Teas' Japan Hybrid. Said to be a cross between *C. Speciosa* and *C. Koempferi*, and in vigorous, upright growth, it surpasses either. It is but little known, yet it is of great value as it grows so very rapidly, and is hardy and very attractive in both foliage and flowers. Suitable for street trees, for single specimens on lawns, or for grouping purposes it presents the most tropical appearance of any of our native trees.

Variegated Foliage. A medium growing variety with variegated or netted foliage, does not produce flowers.

CORNUS, OR CORNEL. (*DOGWOOD*.)

White Flowering Dogwood. (*Cornus Florida*.) An American species of fine form, growing from 16 to 25 feet high. The flowers are produced in the spring before the leaves appear, are from three to three and a half inches in diameter, white and very showy, resembling the Clematis flower somewhat. The foliage in autumn is of a deep red color rendering, the tree one of the most beautiful objects at that season.

Red Flowering. (*C. F. Rubra*.) Tree in habit of growth not unlike the grand white flowering variety; flowers are a rich, rosy red and several inches across, while the foliage assumes a crimson color at an earlier stage, the finest of our native flowering trees.

Weeping. (*C. F. Pendula*.) See weeping trees.

Cornelian Cherry. (*C. Mascula-Manly*.) A yellow flowering variety, tree grows to the height of 10 to 15 feet.

DECIDUOUS TREES—Continued.

COTTONWOOD.

Cottonwood. (*Populus Monilifera.*) Necklace Poplar. A fast growing tree, very hardy and easy to transplant. See also Poplar.

CHESTNUT.

Chestnut. See Miscellaneous Fruits and nuts.

CYPRESS.

(Deciduous, *Taxodium Distichum.*)

Cypress, Southern. A handsome tree with very pinnate leaves.

ELM. (*ULMUS.*)

American. (*Ulmus Americana.*) The noble, drooping, spreading tree of our forests. Grand for park or street trees, very desirable.

Red, or Slippery Elm. [*U. Fulva.*] Tree a strong grower, but more open in growth than the former.

Cedar Elm. [*U. Crassifolia.*] From northern Texas. Foliage very small and closely set on branches.

Purple Leafed English Elm. [*U. Stricta Purpurea.*] A variety with erect branches and purple leaves.

Scotch, or Wych Elm. [*U. Montana.*] A fine spreading tree of rapid growth, foliage large.

Variegated Foliage. Leaves of this variety have blotched leaves.

JUDAS TREE.

Judas Tree. See Red Bud.

KENTUCKY COFFEE TREE.

Kentucky Coffee Tree. (*Gymnocladus Canadensis.*) A fine native tree, and if kept with low head is not unlike the Umbrella China Tree in appearance. It is very hardy and should take a place where the Umbrella tree is too tender.

KOELREUTERIA.

Koelreuteria Paniculata. A medium sized tree, with pinnate leaves, and large clusters of showy yellow flowers in August when few trees are in bloom, tree with yellow leaves at the close of the season.

LARCH. (*Larix, Larche, Ger.*)

European Larch. This is one of the most elegant trees in cultivation. The limbs droop, foliage a soft light green,

it will flourish on the poorest soil and is a very rapid grower.

LINDEN, OR BASS WOOD, LIME TREE, (*Tilia.*)

American Linden. [*T. Americana.*] A rapid growing tree, with round symmetrical head, produces a profusion of yellow flowers in early summer. The flowers yield a delicate perfume, good for bees.

European Linden. [*T. Europea.*] A variety of very neat and compact habit of growth.

Silver Leafed Linden. [*T. Argentea.*] The leaves of this variety are downy white on the under side.

MAGNOLIA.

Magnolia, Acuminata. A noble tree, with immense leaves of bluish green, flowers yellow, tinted bluish purple, fruit green at first, changes to reddish, very desirable on account of its rapid growth and fine flowers.

MAPLES. (*Acer.*)

Maples are very valuable and highly ornamental trees; vigorous growers; free from diseases; hardy and adapted to all soils. Suited to street or park.

Ash Leafed. [*A. Negundo Fraxinifolium.*] See Box Elder.

Norway Maple. [*A. Platanoides.*] A distinct foreign variety, very popular on account of its clean broad foliage of rich deep green, stout grower, inclines to head rather low.

Silver Leafed Maple. Soft Maple. [*A. Dasycarpum.*] Very rapid grower, spreading branches and silvery foliage. Thrives in all soils. It must not be confounded with the Silver Leafed Abele.

Sugar, or Rock Maple. [*A. Saccharinum.*] We consider this the most desirable shade tree in cultivation for planting along drives or avenues. Moderate grower, long lived, symmetrical habit.

Sycamore Maple. [*A. Pseudo Platanus.*] A medium grower and a valuable shade tree.

Wier's Cut Leafed Silver Maple. [*A. Wierii Laciniatum.*] A Silver Maple with remarkable and beautiful dissected foliage, of rapid growth, shoots slender and drooping, giving it a very graceful appearance, grows to a large tree if undisturbed, bears prun-

DECIDUOUS TREES—Continued.

ing remarkably and may be easily adapted to small lawns.

OAK. (*Quercus*.)

American White Oak. [*Q. Alba*.] One of the finest American trees, large size and spreading branches, leaves lobed, pale green above and glaucous beneath.

Chestnut Leafed Oak. [*Q. Prinos*.] One of the finest species, leaves resembling those of the Chestnut.

Black Oak. [*Q. Tinctoria*.] Native tree of very easy growth for an oak.

Black Jack Oak. [*Q. Nigra*, Syn., *Q. Ferruginea*.] Tree forms a fine rounded head, of slow growth.

Burr Oak, Mossy Cup Oak. (*Q. Macrocarpa*.) A stately spreading tree, with large acorns, the cups of which are beautifully fringed.

Post Oak. (*Q. Obtusiloba*, Syn., *Q. Stellata*.) A slow growing tree.

Swamp White Oak. (*Q. Bi-Color*.) A native species, with handsome large sinuate toothed leaves which turn to a bright scarlet in autumn.

Red Oak. (*Q. Rubra*.) An American species of large size and rapid growth, foliage red in the fall.

Water Oak. (*Q. Aquatica*.) Grows near streams and ponds.

POPLAR. (*Populus*.)

Abela. (*P. Alba*.) White or Silver Poplar, or Silver Abela. A rapid growing tree of spreading habit, leaves lobed, glossy green above, snowy white beneath, buds cottony.

Bolle's. (*P. A. Bolleana*.) Tree of columnar or pyramidal habit, resembling the Lombardy Poplar, leaves glossy green above and silvery beneath.

Cotton Wood. (*P. Monilifera*, Necklace Poplar.) One of the most rapid growing forest trees.

Canadian Poplar. (*P. Canadensis*.) A form of the necklace poplar, (*P. Monilifera*.) with more glossy foliage, and found farther north.

Carolina Poplar. (*P. Angulata*.) Both of these varieties are very desirable where shade is wanted as soon as possible, as they are of most rapid growth.

Balm of Gilead, Balsam Poplar, or Tacamahac, (*P. Balsamifera*.) Rapid grower, bright green leaves, spreading, pyramidal form, being planted

extensively in cities on account of its rapid growth and freedom from insects and disease.

Golden Leafed Poplar. (*P. Aura*.) Fine golden yellow foliage, retaining its brilliancy throughout the season.

Lombardy Poplar. (*P. Fastigata* or *dilatata*.) Well known for its erect, rapid growth and commanding form, very desirable in large grounds or along roads. Indispensable in landscape gardening; to break the ordinary and monotonous outlines of most other trees.

Prunus Pissardi. A new and very distinct plum, introduced from Persia, and one of the best novelties of late years. The wood and leaves are dark purple throughout the entire season, the fruit being also purple. Quite hardy, and a great acquisition.

RED BUD, JUDAS TREE. (*Cercis*.)

Red Bud, American Judas Tree. (*C. Canadensis*.) A very ornamental native tree of medium size, irregular rounded form, with heart shaped leaves of a pure green color, glossy surface above, and grayish green beneath. The tree derives the name of Red Bud from the profusion of delicate reddish purple flowers with which it is covered before the foliage appears.

SALISBURIA, JAPAN GINGEO.

Maiden Hair Tree. (*S. Adiantifolia*.) A rare, elegant tree from Japan, with singular foliage unlike that of any other tree, almost fern-like, of free growth and everywhere desirable, combining in its habit characteristics of the conifer and deciduous tree.

SWEET GUM. (*Liquidambar Styraciflua*.)

Sweet Gum. One of the finest American trees. Of medium size and moderate growth, form round headed or tapering, leaves resemble somewhat those of the Maple, but are star-shaped and of a beautiful light green color in summer, turning to deep purplish crimson in autumn, bark corky. Beautiful in all stages of growth, it is particularly handsome and striking in autumn.

SOUR GUM. (*NYSSA*.)

Sour Gum. A tall growing tree, with rather thick, dark green leaves, turning to bright crimson in autumn.

SASSAFRAS. (*S. Officinale*.)

Sassafras. [*Officinale*.] Sassafras tree. A hardy ornamental tree, with spicy,

DECIDUOUS TREES—Continued.

aromatic bark and very mucilaginous twigs and foliage; flowers greenish yellow, in clusters.

TULIP TREE, YELLOW POPLAR.
(*Lirodendron Tulipifera*.)

A tall, broad and pyramidal tree, grows rapidly, bears pale yellow, tulip-like flowers, somewhat resembling the Magnolia, but much smaller.

TEXAS UMBRELLA CHINA.
(*Melia Azadarach*.)

Texas Umbrella China. This is the finest shade and ornamental tree for the South—not hardy north of the Red river—also in great demand in California, where it succeeds admirably. Quick growth, symmetrical in form, produces a dense shade, foliage delicately pinnated, deep green color; flowers emit lilac fragrance.

WALNUT.

See Miscellaneous Fruits and Nuts.

WILLOW. (*Salix*.)

Comewell, or Goat Willow. A rapid and handsome grower. Suitable for planting by the borders of ponds or streams.

Golden. [*Vitellina Aurantiaca*.] A conspicuous tree both summer and winter, owing to its yellow colored shoots.

Laurel Leafed. [*Laurifolia*.] A splendid ornamental small tree, with large, glossy, laurel-like leaves, whence its name.

Ozier, or Purple. A very valuable kind for baskets and all kinds of willow work. Useful for tying trees and shrubs, besides other uses.

Scarlet Willow. [*S. Britzensis Vitellina*.] A small tree, of upright, symmetrical growth, with medium light green foliage, branches intensely brilliant scarlet.

White, or Gray. A thrifty growing variety.

Weeping Willow. See Weeping Trees.

YELLOW WOOD. (*Cladastris, Tinctoria*,
syn. *Virgilea Lutea*.)

Yellow Wood. An elegant native tree, bearing large clusters of charming white flowers, appearing in June in great profusion.

DECIDUOUS WEEPING TREES.

Much attention is now given to this interesting class of trees. For the benefit of those unacquainted with their habits, we would say they should be divided into two separate classes, viz.: those which are grafted or budded where the top or head commences to form, as in the Weeping Russian Mulberry, Kilmar-nock Willow, Galena Elm, Mountain Ash, Cornel, Cherry and Poplar; and those having long slender branches which droop naturally, like the Babylonian, Wisconsin and Orel Willows, Cut-Leafed and other Weeping Birches. The first assume that conspicuous umbrella-like form so well known, and so excellently adapted for planting in cemeteries, small yards and gardens. The latter have tall growing trunks, with long slender branches, and are really handsome. They are well adapted to larger places, where they can have sufficient room.

Cornel. (*Cornus Florida Pendula*.) A weeping form of the white flowering variety, the flowers appearing before the leaves, and are as large as that well known variety. (Could be called a tree clematis.) The flowers are succeeded by red berries, as in the upright growing variety, and are not unlike the Holly in that respect.

Birch, Cut-Leafed, European White. An elegant tree, with slender drooping branches, and delicately cut leaves, charming.

Cherry. (*Prunus Serotina Pendula*.) A weeping form of the wild black cherry of the forests. Twigs of this tree are very brash, and easily broken.

Elm. (*Ulmus Pendula*.) "Galena." A rapid growing variety, having large, luxuriant and deep green foliage, must attain considerable size to produce a good effect. Well adapted for planting on large places.

Mountain Ash. (*P. S.*—*Aucuparia Pendula*.) The branches of this distinct variety are of a straggling, pendant character, turning and twisting in all directions and producing a very pleasing effect; covered during the autumn with bright red berries.

DECIDUOUS WEEPING TREES—Continued.



IN SUMMER.

Teas' Weeping Russian Mulberry.

FOUNTAIN TREE



IN WINTER.

Teas' Weeping Russian Mulberry. The most graceful and hardy Weeping tree in existence. Wholly unlike anything heretofore introduced. Forms a perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground. All who have seen it agree that in light airy gracefulness and delicacy of form and motion it is without a rival. It will undoubtedly take the foremost place among Weeping trees; it has beautiful foliage, is wonderfully vigorous and healthy; is one of the hardiest, enduring the cold of the North and the heat of the South; safe and easy to transplant. Admirably adapted for ornamenting small or large grounds, or for cemetery planting. Can be trained to a shady arbor without posts.

Sophora Japonica Pendula. (Japan Weeping Sophora.) One of the most beautiful weeping trees; very regular and graceful weeping habit, made up of picturesque short curves, and small foliage hanging in beautiful tresses; rare and choice.

Willow, Wisconsin Weeping. A large tree, with long, drooping branches; similar to the *Babylonica*, but much hardier.

Willow, Weeping Babylonica. A well known and most graceful tree of large size. Its fresh, bright green tint and long, wavy branches make it very attractive.

Willow, Orel, (Russian.) Similar to Wisconsin Weeping Willow in growth, and claimed hardier than any other.

Hardy Ornamental Shrubs.

CLASS 1. DECIDUOUS SHRUBS.

A few hardy shrubs are a necessity in every garden; they require very little care, are perfectly hardy, and by planting a few distinct sorts they will flower in succession and make the bed attractive during the whole season.

Alder. (*Alnus Communis.*) Grows in muddy ground. **Adromeda Racemosa.** Pepper bush.

ALTHEA. (*Hibiscus.*) **Rose of Sharon.**

The Altheas are a fine, handsome, free growing class of flowering shrubs, of easiest cultivation; makes a beautiful ornamental hedge. They thrive in almost any situation, and are very attractive. Flowers are large sized, bell shaped in the single flowering variety, while the double flowering varieties assume a more rounded shape. Various colors. Flowers are borne in the fall when nearly all other shrubs are out of bloom.

Atropurpureus. Purplish crimson flowers. One of the best.

Banner Althea. Double. The flowers of this variety are as large as good sized roses, and very double; the color is pale rosy pink, elegantly striped with rich crimson. It is a very strong growing variety, and blooms more profusely than any of the others.

Cameliaflora. The flowers of this variety are of largest size, but not double as the above, nor so bright colored.

Double Lilac. Very handsome and double lilac flowering.

Double Purple. (Var *Purpurea Flora Plena.*) Double purple blooms.

Double Red. (Var *Rubra Plena.*) Clear colored flowers.

Double White. (Var *Alba Flora Plena.*) Flowers are large, very double, fine.

Totus Albus. Single. Pure white, very fine, slow growing habit.

Speciosa. Rose colored flowers; very upright growing habit.

Variegated Leafed. (Var *Flora Pleno, Fol. Variegata.*) Double, purple flowering. A very conspicuous variety. The leaves are variegated with light yellow, very showy; does not grow as strong as the preceding varieties, should be in every collection.

BARBERRY. (*Berberis.*)

Common. (*B. Vulgaris.*) A nice shrub, with yellow flowers in drooping racemes in May or June, followed with orange scarlet fruit.

Purple Leafed Barberry. (*B. Purpurea.*) A very handsome shrub, grows to be from 3 to 5 feet in height, with violet purple leaves and fruit; very effective in grouping, makes a fine ornamental hedge.

BROOM, GENESTA.

Green Broom. Bears yellow flowers in profusion all summer.

Scotch Broom. Slender, silky branches and bright yellow flowers.

Rush Leafed Broom. Large, yellow, fragrant flowers.

CALYCANTHUS. Sweet Scented Shrub. Allspice.

Calycanthus. A very desirable shrub, fragrant in wood and flowers, which are chocolate colored; blooms in May and at intervals thereafter.

BLADDER SENNA. Colutea.

Colutea Arborescens. A large shrub, with small delicate foliage and yellow pea blossomed flowers in May, followed by reddish pods or bladders.

CARAGANA.

Caragana, or Siberian Pea Tree. A profuse yellow flowering shrub, with elegant foliage.

DEUTZIA.

This class of shrubs is a native of Japan, and one of the most popular, owing to their hardiness, luxuriant foliage and profusion of attractive flowers.

Deutzia Crenata. (Var *Flore Plena, Double Flowering Deutzia.*) Flowers white, tinged with rose.

HARDY ORNAMENTAL SHRUBS—Cont'd.

Deutzia Crenata. (Var Flore Alba Plena, Double White Flowering Deutzia.) Similar to the preceding, but pure white and double.

Deutzia, Pride of Rochester. A variety of recent introduction having large, double, white flowers, the back of the petals being slightly tinged with rose; blooms earlier than the Deutzia Crenata Flore Plena.

Deutzia, Gracilis. Slender branched Deutzia. Dwarf habit; flowers pure white; well adapted to pot culture.

Deutzia, Crenata. (Var Scabra D. Fortunii, Rough Leafed Deutzia.) One of the most beautiful and profuse white flowering shrubs; flowers single.

SAMBUCUS, ELDER.

Elder, Variegata. A variety with variegated foliage; blossoms same as common elder.

Elder, Cut Leafed. (Var Lacinata.) A valuable variety, with elegantly divided leaves; one of the best cut leafed shrubs.

EUONYMUS.

Strawberry, or Spindle Tree. Burning Bush. A small growing shrub with rose colored fruit.

EXOCHORDA.

Exochorda. (E. Grandiflora.) A tall shrub from North China. Flowers pure white, very large and profuse; one of the finest shrubs of its season.

FLOWERING CURRANTS. Ribes.

Flowering Currant. (R. Missouriiana.) Yellow, fragrant flowers.

PURPLE FRINGE or SMOKE TREE.

(Rhus Cotinus.)

Fringe, Purple. A small tree or shrub, very much admired on account of its peculiar fringe or hair like flowers, covering the whole surface of the bush in mid summer.

Fringe, White. (Chionanthus Virginica.) One of the finest trees or shrubs with large, green leaves and racemes of delicate fringe like, greenish white flowers in May.

GOLDEN BELL. (Forsythia.)

Golden Bell. (F. Fortunii.) Growth upright, foliage deep green; flowers yellow, appearing very early in spring before the leaves.

Golden Bell. (Var Veridissima.) A fine, hardy shrub; leaves and bark deep green, flowers deep yellow, very early.

HALESIA.

Silver Bell. (Halesia.) The "Snow Drop Tree," of Carolina.

HAWTHORN, (Crataegus.)

Hawthorn, Paul's Double Crimson. (C. Oxycantha.) Tall shrubs or small trees, producing a profusion of double flowers in May; A choice shrub with handsome foliage.

HONEYSUCKLE. Upright. (Chamocerasus.)

Honeysuckle, Tartarian. A fine shrub bearing a profusion of pink colored flowers in May and June. Very hardy and excellent.

Honeysuckle, Xylosteum, or Fly Honeysuckle. A pretty species, blooming profusely in June.

HYDRANGEA.

Hydrangea Paniculata Grandiflora.

This splendid shrub, recently introduced from Japan, and is placed by the general verdict at the head of the list. It is a bushy and compact grower; flowers appear in August and September, are pure white, afterwards changing to pink and rich coppery red and are borne in immense pyramidal trusses more than a foot long and quite as much in diameter.

JAPAN QUINCE. (Pyrus Japonica. Cydonia.)

Japan Quince or Pear. Scarlet Flowers. A most brilliant shrub, much admired, with bright, scarlet flowers in great profusion in early spring. Very hardy and valuable. If grafted on a suitable standard stock its effect is most striking.

Quince, Chinese. Quite distinct from the Japan Pear above described, being a small tree with large flowers, and curious fruit resembling a cucumber; rare.

KERRA. (Corchorus. Globe Flower.)

Kerra Japonica. A slender, green branched shrub with globular, yellow flowers from midsummer to fall.

LILAC. (Syringa.)

Lilac, Purple. A handsome and useful plant.

Lilac Persian. Medium size, small foliage, neat habit, handsome clusters of fragrant, purple flowers; one of the best.

HARDY ORNAMENTAL SHRUBS—Cont'd.

Lilac, White. A vigorous grower, neat light green foliage; large clusters of white fragrant flowers; very showy and desirable.

PHILADELPHUS.

Philadelphus. (*Syringa*, or Mock Orange.) Strong growing, robust habit, pretty foliage, very fragrant, white flowers, resembling apple blossoms.

Philadelphus Coronaria. Sweet-scented.

Philadelphus Dianthaeflorus. A new, semi-double flowering form, of dwarf, compact habit, forming a handsome round headed shrub 2 to 3 feet high, producing abundantly semi-double like flowers of creamy white color.

SYMPHORICARPUS.

Snowberry, White. A well known, pretty shrub, with small, pink flowers, succeeded by large, white berries.

Red Fruited Snowberry, or Indian Currant. A very graceful shrub, distinct from the above, the long, slender branches of which are covered with numerous red berries, which remain on the bush all winter; charming.

PRIVET. (*Ligustrum*.)

Privet, Californian. A desirable shrub nearly evergreen, that produces delicate white flowers in great profusion; the flowers possess a pleasant Heliotrope fragrance.

Privet. Common. (*Ligustrum Vulgare*.)

Privet. Japan. (*L. Japonicum*.)

PALIURUS ACULEATA.

Christ's Thorn. A branching spiny shrub.

SPIREA. Meadow Sweet.

Spirea Aurea. A grand shrub, with bright golden yellow foliage. Very conspicuous, and contrasts finely with other sorts; flowers white.

Spirea Billardi. Rose colored, blooming nearly all summer.

Spirea Douglassi. Rose colored *Spirea*.

Spirea Prunifolia. Double Flowering Plum Leafed. New and elegant. Its long branches are quite concealed by a profusion of neat, white, double flowers, like little daisies.

Spirea Callosa, Alba. Has white flowers, and blooms nearly all summer.

Spirea Van Houttei. This rare variety is the most showy of all the *Spires*, and is one of the very best flowering

shrubs in cultivation. In the spring the plants are a perfect snowbank of bloom, the long, slender branches drooping gracefully with their weight of flowers. Strong growing and entirely hardy; it is also ornamental for its rich blue-green foliage.

Spirea Reevesi. Pure white blossoms, very double, like small roses.

Spirea Thunbergi. Beautiful fern-like leaves, which remain until late fall, changing from green to most glowing and rich colors; forms a large, dense bush, which in spring is a perfect mass of elegant white flowers.

TAMARIX.

Africana. A graceful shrub, having pink flowers and leaves like an evergreen. Unlike all other shrubs.

PTELEA. Hop Tree. Wafer Ash.

Hop Tree. A handsome tree; the seeds which are winged, possess the astringent property of hops. Ornamental.

PRUNUS. Plum.

Dwarf, Double White Flowering Almond. (*P. Japonica*, Fl. *Alba Plena*.) Produces beautiful white double flowers and narrow leaves.

Dwarf, Double Rose Flowering Almond. (*P. Japonica* Fl. *Rubra Plena*.) A beautiful shrub, with great numbers of double, rose colored flowers appearing before the leaves in April.

Prunus Pissardi. See ornamental trees Page 39.

Prunus Triloba. Native of China; flowers semi-double, of a delicate pink, closely set along the slender branches and appearing early in the spring. Desirable and popular.

STYRAX JAPONICA.

Styrax Japonica. A fine, new, hardy flowering shrub, of low growing habit; foliage deep green and the whole plant covered with beautiful drooping star shaped, white flowers, which turn into white berries that remain on the plants until winter. Being a new introduction it is yet quite scarce.

SNOWBALL. Viburnum.

Snowball. *Viburnum Sterilis*. A well known shrub, attains the height of 8 to 10 feet; produces its snowy white flowers in large balls or masses in May.

High, or Bush Cranberry. *Viburnum Oxycoccus*. Both ornamental and useful, its red berries resembling cranberries, esteemed by many, hang until destroyed by frost late in the fall.

HARDY ORNAMENTAL SHRUBS—Cont'd.

Resembles the Snowball in wood and foliage.

WEIGELA. *Dierville.*

Weigela. *Amabilis*, or *Coraensis*. A new and very distinct species, with larger and more remarkable foliage, and satin rose flowers. It blooms in June, and also in the Autumn; fine.

Hortensis Nivea. Pure white, new and extra fine.

Weigela Desboisii. Similar to *Weigela Rosea*, a stronger grower, and the flowers are much darker.

Weigela Florabunda. A rare variety, with light green foliage, and dark crimson flowers, with the white stamens projecting from the flowers, reminding one of *Fuchsia* flowers. It blooms in spring with other *Weigelas*, but if the plants are cut back well after young growth have been made, the plants will bloom profusely in the fall. The general habit of the plant is distinct from other *Weigelas*, making this a very valuable variety.

Weigela Rosea. A well known flowering shrub from China, of erect, compact growth, with an abundance of fine rose colored tubular flowers in early summer. One of the best and most popular *Weigelas*, and a general favorite among flowering shrubs.

Weigela Venosa. Flowers very nearly crimson.

Weigela Variegated Leafed. Very desirable on account of its finely variegated foliage, which is yellowish white and lasts the entire season, and contrasts finely with its rose colored flowers.

MISCELLANEOUS.

Callicarpa Purpurea. Berries deep violet color; very showy.

Camellia Japonica. From Japan.

Carpinus American. Blue water Beech.

Acasia Rose. A well known showy plant with clusters of rose colored flowers, blooming a large part of the season.

Laburnum. Golden Chain. (*Cytisus*.) A lovely shrub with beautiful pendulous racemes of light yellow flowers.

Leatherwood. (*Dirca Palustris*.) The bark is used for cordage and the twigs for baskets.

CLASS 2.

HARDY CLIMBING VINES
and TRAILING SHRUBS.FOR THE VERANDA, ARBOR, PORCH,
TRELLIS, ETC.

The Climbing Shrubs and Vines are useful to adorn and embellish the yard and grounds, and to hide whatever may be unsightly, and when trained over verandas, arbors, gateways or trellis they, or so many of them as can be well located, cannot fail to challenge admiration by the beauty of their flowers and the elegance of their foliage. They are all desirable where space and time can be given to their culture.

Actinidia Argentea. A beautiful Japanese climber, with white fragrant flowers.

AMPELOPSIS.

American Ivy, or *Virginia Creeper*. (*A. Quinquifolia*.) This is the best of all hardy, rapid growing vines for covering trellises, arbors, balconies, fences, stone walls, and all brick or stone buildings. It clings of itself to all structures, wood or stone, and needs no artificial training. It is the best vine for ornamenting houses, in city or country, and makes everything it touches picturesque. For this purpose it takes the place of the English Ivy. Its foliage is of great beauty, and in Autumn becomes a vivid crimson.

Boston Ivy. (*Ampelopsis Veitchii*, *Japan Ivy*.) A miniature form of the American Ivy, clinging to a brick or stone wall, and covering densely great breadths of wall in a few years, succeeding in almost any position; truly a gem among climbers. The texture is leathery and smooth, the foliage is closely overlapping, not a stem visible, and is a rich shade of green in the summer, but in the fall it assumes the most gorgeous tints of scarlet, crimson and orange, so dazzling as to be seen at a great distance.

Englemannii. A new variety recently introduced.

CLEMATIS.

Clematis Scarlet. (*Coccinea*.) Bright scarlet has been a color hitherto unknown in *Clematis*, but in this sort we have that color which, when placed in contrast with the blue, purple and

HARDY CLIMBING VINES—Continued.

white kinds has a most striking effect. It is equally hardy as the other well known sorts.

Clematis Flammula. The well known Virgin's Bower flowers, quite small, white, in great numbers, succeeded by woolly tufts of the plumed sorts to the seed vessel.

Clematis Jackmannii. The best known and one of the finest, color intense violet purple of a peculiar richness, blooming continually from July until frost. The flowers are from five to six inches across.

Clematis Vitalba. Traveler's joy.

Clematis Viticella. Common purple, medium size flowers.

CELASTRUS SCANDENS.

Climbing Bittersweet. A beautiful native climber, leaves pea green, flowers small, followed by clusters of orange capsuled berries.

HONEYSUCKLE. LONICERA.

Honeysuckle, Golden Leaved. (Aureo-reticulata.) Of moderate growth; leaves beautifully veined and netted with clear yellow, so that the prevailing color of the foliage is bright yellow; flowers yellow and fragrant; admirable for pillar and trellis work.

Honeysuckle, European Sweet Scented. (Belgian.) A fine hardy grower, flowers large and exceedingly sweet, color buff, yellow and red, a constant bloomer; one of the finest Honeysuckles, suitable for trellis or pillar.

Honeysuckle, Halliana. A new variety lately introduced from Japan and considered a great acquisition; it is evergreen and a constant bloomer; flowers pure white, changing to yellow, is very fragrant, good for trellis or pillar; one of the very best varieties for all purposes.

Honeysuckle, Red Coral. Scarlet Trumpet. A hardy, rapid grower, bright red, trumpet shaped flowers.

Honeysuckle, Yellow Trumpet. (L. Flava.) Charming yellow, constant bloomer.

Chinese Evergreen. A good species, retaining its foliage nearly all the winter. Crimson and yellow flowers.

MYRTLE.

Bayberry, or Wax Myrtle. (myrica Californica.)

Candleberry Myrtle. (m. Certifera.) The fruit yields a wax used for candles.

Myrtle-Vinca, or Periwinkle, Blue. The Running Myrtle is a pretty creeper, with evergreen foliage and charming flowers. The Myrtles all like the shade but flourish everywhere. Very suitable for graves.

PERIPOLOCA.

Virginia Silk. A first-rate climber, of rapid growth, with handsome dark foliage and curious brown flowers.

WISTARIA, GLYCINE.

Wistaria, American Blue. The handsomest of all climbing plants; it attains a large size, and in June produces great numbers of long pendulous clusters of pale blue flowers. A magnificent plant, very hardy.

Wistaria, Chinese White. A superb variety recently introduced from China by Mr. Fortune, the flowers of which are pure white.

Wistaria, American White. Flowers are borne in shorter and more compact clusters than the Chinese.

MISCELLANEOUS.

Aristolochia Siph. (Dutchman's Pipe Vine.) A magnificent hardy vine of rapid growth, with large heart shaped, dark green foliage 10 to 12 inches in diameter, and curious pipe shaped yellowish brown flowers.

Bignonia Radicans. (Trumpet Vine.) A very hardy, vigorous vine, clinging with great tenacity to walls, trees, etc. Produces long, trumpet shaped flowers in August and September.

Grape Vines. All the hardy varieties are valuable climbers, and having large, luxuriant foliage, are among the best plants for covering arbors, verandas, walls, etc.

Hardy Passion Flower. This fine herbaceous climber, grows twelve or fifteen feet in a season, blooming freely in July August and September. Its rich palmate foliage and curious and splendid flowers, which are delightfully fragrant, make it a very attractive plant. Give it a warm situation, and very rich and well manured soil. The top dies down in winter, but it remounts with great rapidity rather late in the spring.

Running Roses. In many sorts, for which see special list.

CLASS 3. .

EVERGREEN SHRUBS.

BUXUS.—Box.

The Box is a desirable evergreen for the South. It succeeds best in a moist, clayey soil, and does not thrive in a very sandy soil.

Buxus Arborescens. (Tree Box.) From England. Makes a large shrub; foliage small, deep green.

Buxus Argentea Variegata. Foliage conspicuously marked with silvery white.

Buxus Aurea Variegata. Leaves ovate and irregularly marked with golden yellow.

Buxus Japonica Rotundifolia. From Japan; large, broadly ovate, yellowish green leaves.

Buxus Japonica Microphylla. Small, green foliage.

Buxus Longifolia. From China; an upright grower; long, glossy, green leaves, of compact habit, one of the best.

Buxus Suffructicosa. (Dwarf Box.) Used for borders and edgings; strong plants.

CRATAEGUS PYRACANTHA.

Evergreen Thorn. Lovely evergreen, with a profusion of scarlet berries.

EUONYMUS.

Euonymus, Radicans. Foliage green; trails like next, useful for rockeries.

Euonymus, Japonica Radicans Variegata. A trailing variety, and if kept sheared makes a beautiful low edging or border plant; foliage green, conspicuously marked with white; clings to trees or walls like the ivy.

LAUREL.

Laurel, K. Angustifolia. American Laurel.

Laurel, Mountain (K. Latifolia) Calico bush.

YUCCA.

Yucca, Adams Needle. Spanish Bayonet.

Yucca, Angustifolia. A narrow leaved variety, flowers white.

Yucca Fillamentosa. Palm Lily. (So called.) This is one of the most elegant plants for the decoration of gardens. Its foliage is evergreen, and tropical in appearance. The pure white and fragrant flowers are produced on stout stems four feet high, rising from the midst of the foliage. The plant is a profuse bloomer in August, and very distinguished in its appearance.

MISCELLANEOUS.

Holly, American. *Ilex Opaca.* A well known native tree of great beauty. It flourishes best in shady, damp situations.

Ivy, English. The well known old variety, and the best and hardiest. A splendid plant. It flourishes best in our climate in shady or sheltered situations. It is very hardy when well established on brick or stone buildings.

Laurus. Sweet Bay.

Mahonia Aquifolia. Syn. *Berberis Aquifolia.* A beautiful, holly-like shrub, producing large racemes of golden yellow flowers in early spring; foliage a bright green; very hardy and desirable.

Rhododendron Catawbiensis. A fine Rhododendron from Georgia, perfectly hardy here. Flowers light red, in immense clusters; very choice.

Evergreens.

(CONIFERAE.)

Valuable for Ornamental purposes, Wind Breaks and Hedges. As a rule, Evergreens are more difficult to transplant than Deciduous trees. Hence both time and manner of transplanting should be well looked after.

April and May are the best months in which to move Evergreens. They should be subjected to as little exposure as possible, and be set out with greatest care. The soil should be well firmed, or rammed down around about them, as they must be planted with all the foliage, or nearly so in most instances, making it an easy matter for wind to move them out of position.

ARBOR VITAE.

Biota. (Asiatic, or Chinese.)

Chinese, Golden. (*Biota Thuya Orientalis.*) A medium size tree, of great beauty about them, as they must be planted with all the foliage, or nearly so in most instances, making it an easy matter for wind to move them out of position.

ARBOR VITAE.

(*Thuya.* American Section.)

American Arbor Vitae. (*Thuya Occidentalis.*) A handsome tree, of regular and symmetrical habit. Growth thick and bushy; one of our best and most useful Evergreens. Excellent for screens and hedges.

Golden. (Douglas.) A splendid variety with a golden foliage; very beautiful.

Little Gem. (Douglas.) Very dwarf; lovely.

Hovey's Golden. Resembling the old Golden in color. A new dwarf sort; fine.

Pyramidal. A superb new and hardy sort, of very compact habit, much better than the Irish Juniper, and growing in a perfect column; rare and beautiful. Largely planted in cemeteries, owing to the small amount of space it occupies. This perhaps is the most valuable Arbor Vitae in cultivation.

Siberian. Tree is very hardy, of compact growth and pyramidal form. It keeps its color well through the winter; handsome lawn tree.

Woodward Dwarf. A very beautiful new, densely branched, oval shaped variety; extra.

CEDAR. (*Cedrus*, Oriental Cedar.)

See also Juniperus, Red Cedar.

Cedar, Deodar. (*Cedrus.*) An elegant tree, with drooping branches; not quite hardy, although it stands well here in sheltered situations.

Cedar of Lebanon. *C. Labina.* Perfectly hardy. One of the most interesting trees in cultivation; retains its color well through the winter.

Japan, or Cryptomeria Japonica. This is an exceeding graceful drooping tree, and is perfectly hardy here; color rich brown.

Cryptomeria Elegans. Habit compact; feathery looking foliage of a silvery glaucous green color turning to a reddish brown in winter. Not entirely hardy here.

CYPRESS. (*Cupressus.*)

Cypress Blue. Foliage of silvery blueish color. Originated with us. Best.

Cypress, (Lawson's.) One of the finest new acquisitions, from the Northwest coast states. Known also as Oregon Cedar, White Cedar and Ginger Pine.

Blue Cypress. (*Guadalupensis.*) A new fast growing variety, with beautiful blueish foliage. Very ornamental for lawns, parks or cemeteries.

Golden Dwarf Cypress. (*Goveniana.*)

MacNabiana. Grows 6 to 10 feet high; dense, small foliage, fine pyramidal form; found about Mt. Shasta, 5,000 feet altitude.

Monterey Cypress. (*Macrocarpa.*) Grows 60 feet high; vigorous and hardy.

Sempervirens. (*Evergreen Cypress.*)

White. (*Cupressus Thyoides.*) A well known and beautiful tree; an elegant tree for ornamental grounds; foliage soft and charming.

EVERGREENS—Continued.

PINES. (*Pinus*.)

Austrian Pine or **Black Pine**. *P. Austriaca* syn. *Nigricans*. A remarkably robust, hardy, spreading tree, leaves long, stiff and dark green; rapid grower. Valuable for this country.

Corsican Pine. *P. Laricio*. A tall, straight, fast-growing tree, with long, irregular foliage, fragrant.

Ponderosa Pine. (Heavy Pine.) *P. Ponderosa*. One of the largest pines known, grows 200 to 300 feet high and 12 to 15 feet in diameter, with very thick, red-brown bark. Found in the coast range on the highest points.

Coulter's. *P. Coulterii*. (Great Coned Pine.) Found in the coast range south of California.

Canary Island Pine. (*P. Canariensis*.)

Cembrian Stone Pine. (*P. Cembra*.) Tall growing tree; short, crooked branches, deep green foliage.

California Nut Pine. (*P. Monophylla*.) Small sized tree; glaucous foliage.

Jeffrey's Pine. (*P. Jeffreyi*.) A magnificent tree, from 100 to 200 feet high; found on the mountains at an elevation of 5000 feet ranging from California to Oregon.

Stone Pine. (*P. Pinea*.) Tall tree, exceedingly picturesque.

Seaside Pine. (*P. Maritima*.) A variety from southern Europe of extremely rapid growth and well suited to light soil in a southern climate, not hardy north.

Bishop's Pine. (*P. Muricata*.) Attains the height of 20 to 25 feet. A rather slender tree found near the coast, where it is exposed to the sea winds and fogs.

Sugar Pine. (*P. Lambertiana*.) A hardy tree of gigantic dimensions from 250 to 300 feet high and from 15 to 20 feet with light brown, smoothish bark; found on both slopes of the Sierras. The wood is like that of the White Pine.

Scotch Pine. (*P. Sylvestris*.) A rapid growing, hardy variety, with stout, erect shoots, and silvery green foliage. Valuable for shelter and makes a good lawn tree.

Torrey's Pine. (*P. Torreyana*.) A small tree, tufted foliage, found near San Diego, California.

White Pine. (*P. Strobus*.) White or Weymouth Pine. The most ornamental of all our native pines. Foliage light, delicate silvery green. Flourishes in the poorest and driest soils; easiest of all to transplant successfully.

FIR. *Picea* Section. (*Abies*.)

With linear flat leaves somewhat two ranked.

Balsam Fir. (*P. Balsamea*. *A. Balsamea*.) A well known popular tree; very handsome while young, assuming the upright or conical form; leaves dark green above, silvery beneath, retains its color throughout the severest winter; grows quite rapidly when established, desirable everywhere.

California White Silver Fir. (*P. Concolor*. *A. Lasiocarpa*.) A very ornamental tree, grows to be 100 to 200 feet high, very common throughout the Sierras, ranging into Oregon, also found in Arizona, Utah and Colorado.

European Silver Fir. (*P. Pectinata*. *A. Pectinata*.) A noble tree, with spreading horizontal branches and broad, silvery foliage, somewhat tender.

Fraser's, or **Southern Balsam Fir**. (*P. Fraserii*.) From Carolina.

Japan Silver Fir. (*P. Firma*.) Very hardy, graceful pyramidal form.

Japan Silver Fir. (*P. Mariessii*. *A.*) A new variety from Japan; scarce.

Normann's Silver Fir. (*P. Normanniana*.)

Silver Fir. (*P. Amabilis*.) A symmetrical, valuable tree.

JUNIPERUS. *Juniperus*, Cedar.
(Wacholder, Ger.)

Irish Juniper. (*J. Hibernica*.) A very pretty little tree, forming a neat tapering column of deep green foliage, very hardy and desirable for planting on lawns or cemetery lots where larger evergreens are not admissible.

Prostrate Juniper. (*J. Repens*.) Native species trailing and densely branched, foliage delicate and shiny, dark green, suitable for rock work, extending to a diameter of 10 to 15 feet in good soil.

Red Cedar. (*J. Virginiana*.) A well known American tree; varies much in habit and color of foliage. It makes a fine ornamental hedge plant.

EVERGREENS—Continued.

Savin Juniper. (J. Sabina.) A low spreading, trailing tree with handsome dark green foliage; very hardy, and suitable for lawns and cemeteries; can be pruned to any desired shape and made very attractive.

SPRUCE. *Abies*.

Colorado Blue Spruce. (A. Pungens. Syn P. Pungens.) A very hardy variety from the mountains of Colorado and northward. Varies in color, very many specimens are of dark apple green to a beautiful silver tint, while the true blue specimens are quite scarce, yet most beautiful. The blue specimens will always command a higher price than the less marked colors although some are indeed silvery blue. Does well in all situations, considered the best ornamental evergreen and should be extensively planted.

Hemlock Spruce. (*Abies Canadensis*.) A well known evergreen tree of high northern latitudes. It is one of the most graceful of Spruces, with a light and spreading spray, frequently branching almost to the ground. It is a beauty for the lawn, and makes a highly ornamental hedge.

Norway Spruce. (A. Excelsa.) A very popular variety from Europe, it has been very extensively planted in this

country for ornamental purposes and also for timber and wind breaks. Tree is of lofty, rapid growth, and pyramidal form; branches drooping when it has attained a large size; hardy in all sections; it is easily transplanted.

Douglas Spruce. (A. Douglassi.) A very large important timber tree, 200 to 300 feet high, of pyramidal shape; found throughout the rocky mountains from Oregon to Mexico; lives 600 years.

White American Spruce. (A. Alba.) A native tree of medium size, 25 to 50 feet, pyramidal form; foliage silvery gray, bark light colored.

SEQUOIA. *Wellingtonia*.

Sequoia Gigantea. (*Wellingtonia Gigantea*.) The mammoth tree of California. This is the largest tree known to exist on the American continent. The bark is from one to two feet thick. One of the largest trees (the so called Grizzly Giant of the Mariposa Grove) is 93 feet in circumference at the ground. Not hardy enough for all situations.

Sequoia Sempervirens. Usually known as the Redwood; grows 200 to 250 feet high and from 8 to 12 feet in diameter. The wood is of a rich brownish red, light, but strong and durable, making excellent timber; not quite hardy enough while young.

② ROSES. ②

TEA ROSES.

They excel all other roses in their superiority for bouquets and cut flowers. In open ground they reach perfection in autumn. All of them need protection in winter.

Catherine Mermet. Bright flesh color, large, full and of beautiful form; a fine winter bloomer in conservatories.

Devoniensis. Large, creamy flowers, justly called the magnolia rose; one of the sweetest roses in existence.

Duchess de Brabant. Soft, rosy flesh, changing to deep rose, edged with silver; a very fine bloomer.

Etoile de Lyon. Chrome yellow, deepening to pure golden yellow, very double, deliciously fragrant, quite hardy for a tea rose. It is equally valuable for forcing under glass.

Jean Pernet. Beautiful bright yellow, medium size, perfection in bud.

J. B. Varrone. One of the most promising new roses, flowers large, full deep rose, changing to bright carmine, buds long, finely shaped, handsome foliage and free blooming.

M'me'de Watteville. Called the Tulip Rose. White, shaded salmon yellow, edged with bright pink.

Madame Host. New, flowers large, finely formed flowers on stout stems, color changes from light yellow to canary yellow; vigorous and abundant bloomer, forces well under glass.

Madame Pierre Guillot. New, flowers large, finely formed, pale yellow, tinted coppery orange at center, free bloomer.

ROSES—Continued.

Marie Guillot. The finest pure white Tea rose, free bloomer and strong grower, buds very double, also fine when in full flowers, none have excelled this rose.

Marechal Neil. Beautiful deep yellow, very full and large, and exceedingly fragrant; needs age to bloom well.

Papa Gontier. A red Tea, semi-double, used for forcing under glass.

Perle des Jardins. Beautiful straw color, sometimes deep canary, large and full and of fine form, slow grower.

Sunset. A bud variation of Perle des Jardins; color rich golden amber.

Pearl Rivers. Ivory White, shaded clear rose.

Safrano. Saffron and Apricot color. One of the oldest good roses, which in bud shape cannot be excelled.

Suvenir d'un Ami. One of the best roses for bedding, large and very double; color deep rosy flesh, tinted with purplish lilac.

Queen. New, medium size, pure white and fragrant, flowers freely, vigorous grower.

Rainbow. New, a bud variation of Papa Gontier; color pink, petals are somewhat striped and blotched, often very pretty.

Waban. New, a bud variation of Catharine Mermet, color rich, bright pink.

BOURBON ROSES.

This group of Roses are harder than the Tea Roses but need some protection in winter in open ground. They deserve to be highly appreciated through their numberless flowers and the purity of the different colors.

Hermosa. The best and hardiest of all our old sorts, continually in bloom, color bright rose.

Louise Odier. Another old variety of great merit and a very free bloomer, color clear rose.

Mrs. Degraw. New, color rich glossy pink, very fragrant, a continuous bloomer.

Mrs. Paul. New, large, open flower, like a Camelia, color bluish white, with rosy peach shading, blooms in autumn.

NOISETTE ROSES.

Most suitable for the southern states, also California and the coast states.

Cloth of Gold. Deep yellow center, with sulphur edges, a shy bloomer.

James Sprunt. (Climbing Agrippina.) Rich, dark crimson.

Marechal Neil. Belongs to this class. See description in Tea Roses.

BENGAL, or CHINA ROSES.

This group is especially adapted for massing in beds or ribbon beds, rose hedges; though not equal in size and beauty to Tea roses, they are unequalled for pot culture as they are most profuse bloomers; nearly as hardy as Bourbon Roses.

Agrippina. Rich, velvety crimson, semi-double, fine in bud, an excellent bedding rose.

Green Rose. (Viridiflora.) Flower quite double, deep green a great curiosity.

Pink Daily. Clear bright pink, medium size, full and double, fragrant, constant bloomer.

White Daily. One of the oldest white roses, very hardy, and constant bloomer.

HYBRID TEA ROSES.

The old Hybrid Tea Rose La France gives us a good idea of the beautiful colors and fine fragrance which are united in this class of new roses. Not as hardy as the Hybrid Perpetual Roses.

American Beauty. Growth very vigorous, blooming as free as La France color rich rose, very fragrant, much used for cut flowers.

Captain Christy. Delicate flesh color, deeper towards the center, very fine.

Duchess of Albany. (Red La France.) New, a bud variation of La France, color rich deep pink, fragrant.

Meteor. New, rich dark velvety crimson, retaining its color well, a constant bloomer, can also be used as a forcing rose.

White La France. New, bud variation of La France, flowers white, slightly tinged with pink, valuable for forcing.

ROSES—Continued.

POLYANTHA ROSES.

This dwarf class with a distinct growth and form of flowers, shoots having six or more flowers in clusters, seem to be as hardy as Bourbon Roses. A native of Japan, can be used as a bedding rose to this effect.

Clothilde Soupert. New, medium size very double and imbricated, similar to an Aster, flowers produced in clusters, pearly white with rosy lake center, sometimes having red and white flowers on same plant, valuable as a market pot plant; flowers are very fitting in floral designs, a constant bloomer, in fact always in bloom. The best rose of recent introduction.

Miniature. Dwarf variety, small, white tinged with pink.

Paquerette. Pure white, flowers small like double white daisies.

Perle d' Or. Orange red, with yellowish tinge, very free bloomer, also a fine bedder.

HYBRID PERPETUAL ROSES.

This class is justly popular as they combine perfect hardiness and perfection in forms, with brilliant colors, and many are as sweet scented as Tea Roses.

Boule de Neige. (Ball of Snow.) This rose properly belongs to the Hybrid noisette class. Pure white, very fine.

Coquette des Alpes. Another Hybrid Noisette, white, sometimes blush, very few thorns.

Earl of Dufferin. New, rich, brilliant velvety crimson, shade dark maroon, delightfully fragrant, one of the finest dark roses.

Fisher Holmes. Reddish scarlet shaded deep crimson, form imbricated.

Gen. Jacqueminot. Brilliant crimson, semi-double, but very large and effective in bud, much used by florists in floral designs and bouquets; flowers fragrant.

Gen. Washington. Bright red, shade crimson, large flat form, very full, and a free bloomer.

Gloire Lyonnaise. White, tinted yellow, the nearest approach to a yellow yet found in the Hybrid Perpetual class, moderately full, resembles a tea rose in form and fragrance.

Her Majesty. Probably the largest rose in cultivation, flowers are fully six inches across, perfectly double, color rich delicate rose, a very strong grower, massive foliage, very hardy.

John Hopper. Bright rose, with carmine center, beautiful in bud.

La Reine. Glossy rose, very large and full, a good, old sort.

Mad. Chas. Wood. Rich crimson, very full, and free bloomer.

Mrs. John Laing. New, soft pink, large and fine form, fragrant, constant bloomer.

M. P. Wilder. Bright, cherry carmine, fragrant, vigorous growth and fine foliage, a free bloomer.

Magna Charta. Carmine pink, and extra free bloomer and strong grower.

Paul Neyron. A rose without thorns, color deep rose, one of the largest flowers; free bloomer.

Salamander. New, bright scarlet crimson, very showy in summer, free flowering.

Vick's Caprice. Large, pink, striped and dashed with white and carmine, a fine bloomer.

HYBRID CHINA ROSES.

Mad. Plantier. Pure white, often called cemetery rose. The best white rose for hedging or for massing in groups; very hardy.

Miss Ingram. Color blush rose.

JAPAN ROSES. (*Rosa Rugosa*) and their Hybrids.

Rugosa Alba. Single, pure white, highly scented.

Madame G. Bruant. The first of a new race of Hybrids, flower buds long and pointed, pure white, semi-double when open, very fragrant, roses produced freely at intervals during summer, very hardy, a handsome bush.

Rugosa Rosea. Rose colored, tinged with violet.

Rugosa Rubra. Rose Apple. Flower single, bright rosy crimson, followed by large apple-shaped berries of rosy red color, making it very ornamental in character; fruit edible.

YELLOW ROSES. Hardy. (*Austrian*.)

Harrison Yellow. Golden yellow, semi-double, free blooming, hardy.

ROSES—Continued.

MOSS ROSES.

This class of roses is admired by all. The charm of a Moss rose is in the bud. They are very hardy, needing the least protection of all roses. Not easily propagated, consequently higher priced; however, once established, will last longer than most all other classes of roses.

Blanch Moreau. Pure, white, perpetual.

Countess de Murinais. Large, fine white, well mossed.

Captain Ingram. Velvety purple, a free bloomer.

Glory of Mosses. Color pale rose, largest flowers.

Henry Martin. Deep, rosy carmine, strong grower.

Luxembourg. Bright, crimson scarlet, large and double, very sweet.

Lancii. Red, a good sort, free grower.

Mad. Moreau. Flowers clear shade of rose, fragrant, perpetual.

Mousseline. White, lightly marked with rose, changing to pure white.

Salet. A good perpetual bloomer, light rose, large and full.

CLIMBING ROSES. (Prairie Rose.)

This class for covering buildings, trees and walls cannot be excelled; perfectly hardy, rapid growth and luxuriant foliage make them most desirable.

Baltimore Belle. White, changing to pale blush.

Eva Corrinne. Pale, delicate blush, changing to white.

Gem of the Prairie. Red, sometimes blotted with white, large flat flowers; fragrant.

Mary Washington. Originated with Geo. Washington at Mt. Vernon, on the Potomac; a hardy, continuous bloomer, pure white, perfectly double and fragrant.

Seven Sisters. (Greville.) Blooms in large clusters, flowers changing from pure white to rich pink.

Queen of the Prairie. Bright, rosy red, frequently with white stripes, vigorous grower.

Tennessee Belle. Not entirely hardy, flowers bright pink; fragrant.

MISCELLANEOUS.

Cherokee Rose. A strong erect growing shrub, with large, pure white, single roses, wax-like, in the south it is much used for hedging; requires protection in the winter here.

Banksia Roses. Not quite hardy, suitable for the Southern and Pacific coast states. Require age to bloom freely, violet scented, two varieties, White and Yellow.

Microphilla Rose. Hardy and vigorous, suitable for cemetery planting, also for walls, mounds and rockwork; small, glossy green foliage, nearly evergreen, flowers semi-double, very pretty, two varieties, White and Red.

Ayrshyre Rose Bennett's. Not quite hardy here, double, white.

Cabbage Rose. (Provence.) Rose color, large, full, fragrant; a fine garden rose.

Sweet Brier Rose. Of English Gardens. This well known rose, used in England for hedging; the delicious fragrance of the leaves secures many admirers for this rose, and justly so.

Hardy Herbaceous Plants.

COLUMBINE.

Aquilegia. Two varieties, White Double and Blue Double. Easily grown.

PAEONIES.

Old, established favorites, long neglected, but now growing in popularity, having been greatly improved in form and color; will no doubt become the rage among flowers. The flowers are large, massive, perfect in outline, and most beautiful. Useful in decorating, and possessing the symmetry and fragrance of the rose. Valuable as cut flowers, travels admirably.

P. Atrosanguinea. Purplish red, tinted with violet.

P. Elegans. Delicate pink, very large, full, and sweet scented.

P. Fragrans, or **Eduhis.** Violet rose, all of one color, very full, and with rose fragrance.

P. Rosea. Beautiful, large, rose colored flowers.

P. White. (Alba Plena.) Double, white, tinged with red.

Also in the following named colors: Crimson, Rose, Dark Rose, Light Rose and Silvery Pink.

HARDY GRASSES.

Arundo Donax. (Great Bamboo.) A beautiful hardy ornamental grass with long, broad, elegantly recurved leaves picturesquely marked with broad, silver stripes; of very easy culture in ordinary garden soil, preferring damp situations; grows 6 to 10 feet high.

Dicentra Spectabilis. One of our most ornamental spring flowering perennial plant, commonly known as "Bleeding Heart," with handsome Paeony-like foliage, and long, drooping racemes of bright pink and white heart-shaped flowers; hardy.

Eulalia Gracilis Uniyitata. Narrow green leaves with a silvery-white midrib. This plant is of most graceful habit and is very useful for decorative purposes, and the center of vases as well as making attractive lawn plant; perfectly hardy, stands our most severe winters.

Eulalia. Japonica Variegata. An entirely new and distinct variety of grass of easy culture, and perfectly hardy; it has long, narrow leaves striped white and green, throwing up stalks from four to six feet in height, terminated with a cluster of flower spikes.

Eulalia Japonica Zebrina. Unlike all other variegated plants, this has its striping or marking *across* the leaf, instead of longitudinally. It grows from four to six feet in height, forming a most striking and graceful plant, resembling nothing else that we know of in cultivation. The expanded flower-spike resembles the ostrich plume.

Erianthus Ravennae. Ravenna Grass. Perfectly hardy; the foliage forms graceful clumps three to four feet high, above which arise numerous spikes five or six feet, bearing plummy flowers.

Pampas Grass. (Gynemum Argenteum.) One of the most effective of the Ornamental Grasses. Its silvery plumes are produced on stems 8 to 10 feet high; well established plants can remain in the open ground from year to year if protected. Requires a rich and deep soil. The plumes, when cut before they fully expand, and dried in the shade, make handsome decorations.

Phalaris Arundinacea Variegata. (Ribbon Grass.) Perfectly hardy, large green leaves variegated with white, will grow in any place, make very handsome clumps.

Hollyhock. Doubles. This old hardy garden plant has been much improved lately; beautiful, perfect, double flowers in all colors.

Phloxes. (Perennial). Few plants gives greater satisfaction to the amateur than the Phlox. The ease with which they are cultivated, their entire hardiness, their extended season of blooming, and the varied and beautiful colors of the flowers, make them very desirable. They succeed well in any good, rich soil, not over-dry. This collection embraces every color from purest white to darkest crimson.

Cross of Honor. An attractive striped variety; color a beautiful rosy mauve, each petal regularly marked with white.

HARDY HERBACEOUS PLANTS—Cont'd.

Lothair. Beautiful rosy salmon.

Roi des Roses. Salmon red.

The Queen. Pure white.

Tritoma Uvaria. The Tritoma, or Red Hot Poker, is another plant which deserves to be more cultivated. It does well anywhere; prefers a moist ground. The spike is of orange red color, about a foot in length.

LILIUM. (Lilies.)

The Lily has always been a favorite flower. Some varieties are magnificent and ought to be in every garden. They are of easy culture and can be planted in the fall or spring. All are hardy. Plant eight inches deep. Cover during winter with straw or coarse manure. Plant in good garden soil with good drainage.

Lilium Auratum. Golden banded Japan lilies; the finest of all, fragrant.

Lilium Longifolium. Trumpet shaped, white, one of the best.

Lilium Candidum. The old white lily.

Coral Lily of Siberia. (L. Tenuifolium.)

This charming Lily well deserves the attention it has created. The flowers and foliage present the most elegant appearance; the petals are wax-like and beautifully reflexed; the color is dazzling vermilion scarlet, and as the flowers are suspended on drooping, graceful stems, the effect is exquisite, perfectly hardy.

Harrisi. (Bermuda Easter Lily.) While in great demand for winter flowering,

this superb variety is almost equally valuable for general planting. North of Washington, D. C., should have protection during the winter.

Lilium Tigrinum. Single blooming.

Tigrinum Flore Pleno. The Double Tiger Lily. Of stately habit, growing from four to six feet high; foliage dark green, very long, bearing an immense number of double, bright orange red flowers, spotted with black. This is one of the most showy and brilliant of all Lilies.

Lily of the Valley. (Convallaria Majalis.) This beautiful little plant is extensively grown for forcing in the winter and early spring months, the pendulous grace of its white flower spike being much prized in the construction of the most valuable baskets and bouquets. It is entirely hardy, preferring a position slightly shady.

White Water Lily. (Alba Nymphaea Odorata.) The fragrant White Water Lily can be cultivated easily in ponds, tubs, or large aquariums. Roots once planted in a pond or stream will need no further care, and will increase yearly.

Tuberose. A beautiful, wax-like, pure white, sweet-scented flower, well known to all. Plant in the warmest place in the garden, and plant when the weather becomes warm. The bulb flowers but once, but the small young ones, after a year's growth, make generally flowering bulbs. Take the bulbs up before severe frosts; dry the bulbs then; keep in warm place all winter and start early.

WHEN TO SPRAY, AND WHY.

Apple Trees. For the prevention of leaf blight spray as soon as the leaves are full grown with Bordeaux mixture or ammoniacal carbonate of copper. To destroy the aphid or plant lice, spray with kerosene emulsion as soon as the pests appear. To destroy the codling moth, canker worm and curculio, spray with Paris green or London purple, $\frac{1}{4}$ pound in 40 or 50 gallons of water, soon after the blossoms fall, and again two weeks later. To destroy the web worm, spray with London purple or kerosene emulsion about August 1st to 10th, or as soon as they appear. This application should be made during the middle of the day, when the worms are out of their webs and feeding on the leaves.

Cherries. Treatment same as recommended for the apple.

Pears. The pear slug can easily be destroyed by spraying with Paris green four ounces to 50 gallons of water, or kerosene emulsion as soon as it begins operations. Pear-leaf mite can be destroyed by spraying with kerosene emulsion. The codling moth and curculio should be treated same as recommended for apple trees.

Plums. Destroy the aphid with kerosene emulsion and a fine spray nozzle. The curculio can be destroyed by spraying with 3 oz. Paris green to 40 gallons of water. First applications should be made as soon as blossoms have fallen, and repeat at intervals of a week or ten days. Four applications should be sufficient. Other enemies of the plum will be destroyed by this method, but in all cases be particular to keep the poison and water constantly stirred.

Peaches. If attacked by the black peach aphid, spray with kerosene emulsion. The plum curculio frequently attack the peach, in which case spray with Paris green, two ounces to 50 gallons of water; be sure to keep it well stirred, and use with caution. Never use London purple on peach trees.

Currants and Gooseberries. To destroy the worms, spray with powdered white hellebore, one ounce in three gallons of water, as soon as the worms appear. To destroy the yellow aphid, spray with kerosene emulsion early in the season. To prevent mildew, use one-half ounce potassium sulphide to one gallon of water.

Formulas.

KEROSENE EMULSION.

In making the kerosene emulsion for spraying trees for lice, be sure and follow the correct method: Dissolve in two qts. of water 1 qt. of soft soap or $\frac{1}{4}$ lb. of hard soap by heating to the boiling point. Then add 1 pt. of kerosene oil and stir violently for from three to five minutes. This may be done by taking a common force pump and putting the end of the hose back into the mixture again. This mixes the oil permanently, so that it will never separate, and it may be diluted easily at pleasure. This mixture should be diluted to twice its bulk with water or about 14 times as much water as kerosene. The kerosene emulsion is successful in destroying cattle lice and sheep ticks, as well as all varieties of plant lice.

is 5 oz. of carbonate in 3 pts. of strongest ammonia, and dilute to 50 gallons.

Yours truly,

L. H. BAILEY.

Professor of Horticulture.

(From The Journal of Mycology, Washington D. C. 1891.)

* * * The cheapest and most effectual remedy for black rot and downy mildew, taking everything into consideration, is the ammoniacal solution of copper carbonate. Next to this, a mixed treatment consisting of two or three early sprayings of Bordeaux mixture and the same number of late treatments with ammoniacal solution.

FORMULA FOR BORDEAUX MIXTURE.

Six pounds of sulphate of copper are dissolved in six gallons of water; in another vessel four pounds of fresh lime are slaked in six gallons of water. After the latter solution has cooled, slowly turn it into the other solution and add ten gallons of water. This, when all is thoroughly mixed and strained, is ready for use. In straining this mixture reject all of the lime sediment, using only the clear liquid; strain the white wash through a coarse gunny sack, stretched over the head of a barrel.

NO DANGER WHATEVER.

Not only hundreds, but thousands of tons of mineral poisons have been employed during the past decade by farmers throughout the country, whether to protect the potato crop, or the cotton crop, or other products of the soil from the ruinous attacks of insects. The general experience during this long period and over the whole country is so emphatically in favor of their use, and their perfect safety and harmlessness, with ordinary precautions, as to render almost laughable the objections of the few persons who object to them. No advancement, no improvement, no general benefit to the human race is ever accomplished without some attendant danger, and those who inveigh against such improvements as increasing the risks of life stand on the same footing as the opponents to arsenical poisons as insecticides. Report of United States Entomological Commission.

SOLUTION OF AMMONIACAL CARBONATE OF COPPER.

Into a vessel having a capacity of about one gallon, pour one qt. of ammonia (strength 20 degrees Baume); add three ounces of carbonate of copper; stir rapidly for a moment and the carbonate of copper will dissolve in the ammonia, forming a very clear liquid. For use dilute to 25 gallons.

(New York Weekley Tribune, Nov. 4, 1891.)
BY PROFESSOR A. J. COOK.

LIME WITH THE ARSENITES.

Use of the arsenites, London purple and Paris green, to protect apples is becoming very common. We should never use these poisons stronger than 1 lb. to 200 gallons of water; that strength is always sufficient to accomplish the purpose. If weaker than this, we do not always reap full benefit. Last year Professor Gillette found that by the use of lime with these substances the soluble arsenic was changed into an invaluable compound, and then the foliage was not injured. The same has been proved true at the Michigan station. We experimented on all our fruit trees, even the tender peach, and the lime in every case prevented all injury. We tried several applications at intervals of ten days on some plants, and no harm resulted. We see then, that by use of bordeaux mixture or limewater instead of pure water, we can entirely prevent injury to foliage by the arsenites. The limewater should be formed by putting from 1 to 4 lbs. of thoroughly slaked lime into 100 gallons of water. If we wish to use an insecticide and a fungicide at the same time, then we may add 1 lb. of London purple to 100 gallons of Bordeaux mixture. In every case the lime must be carefully and thoroughly soaked, or that will kill the foliage.

EAU CELESTE, MODIFIED FORMULA.

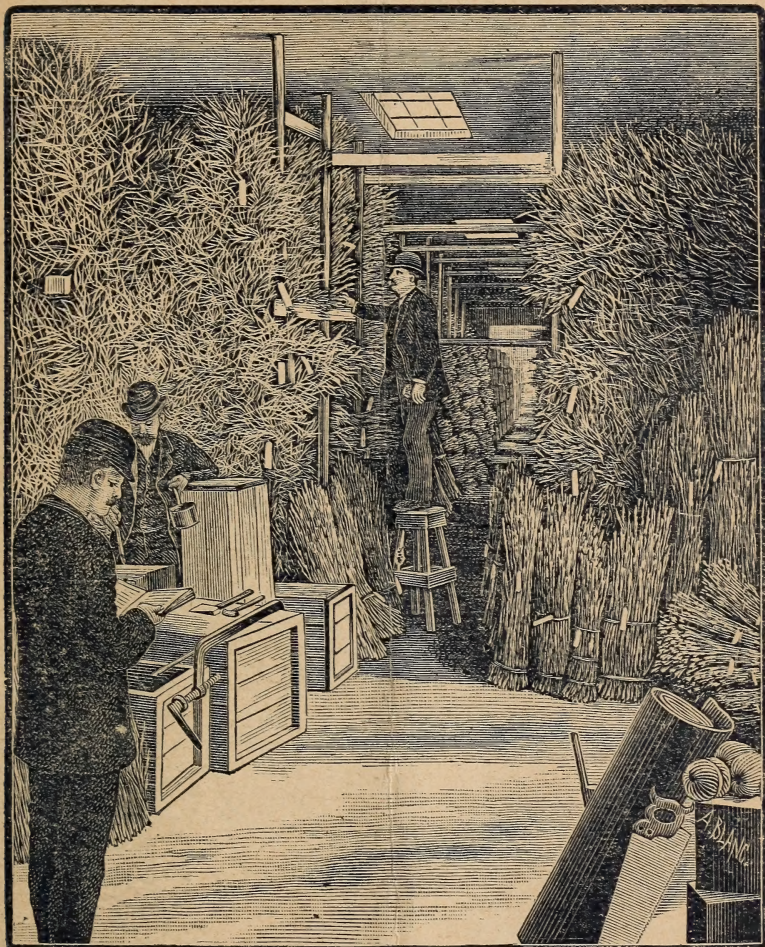
Dissolve 4 pounds of copper sulphate in 10 or twelve gallons of water. Add three pints of strong ammonia, dilute to 50 gallons, and add 5 pounds of common washing soda. Stir thoroughly and the solution is ready for use. This may be used in place of the two mixtures mentioned above, but no special advantage is claimed for it over either of the others.

THE CORNELL UNIVERSITY,
COLLEGE OF AGRICULTURE.
ITHACA, N. Y., Sept. 11, 1891.

Sirs:—I recommend carbonate of copper for grape diseases instead of Bordeaux mixture, because it is much more easy to prepare and handle, and it is also cheaper. There are two or three good formulas. I usually dissolve 3 oz. of carbonate in a quart of ammonia and dilute to 25 gallons. Another good formula

Special Mention. COOL STORAGE. Winter Shipments.

The Past Years have demonstrated the great necessity of *Winter Storing* young nursery stock and plants and we now have with our **COOL STORAGE PROCESS** the best method of **KEEPING AND WINTERING** trees and plants for shipment at any time, likewise extending planting and shipping into the month of May.



FOR WINTER AND SPRING ORDERS.—Our storage Room, (see above cut) having a capacity of over 20 car loads, will be supplied with an assortment of leading Fruit Trees, Forest Tree Seedlings, Grape Vines, etc., which will enable us to **Ship** to our Texas, Pacific, Western and other distant customers as **early** as they may desire.

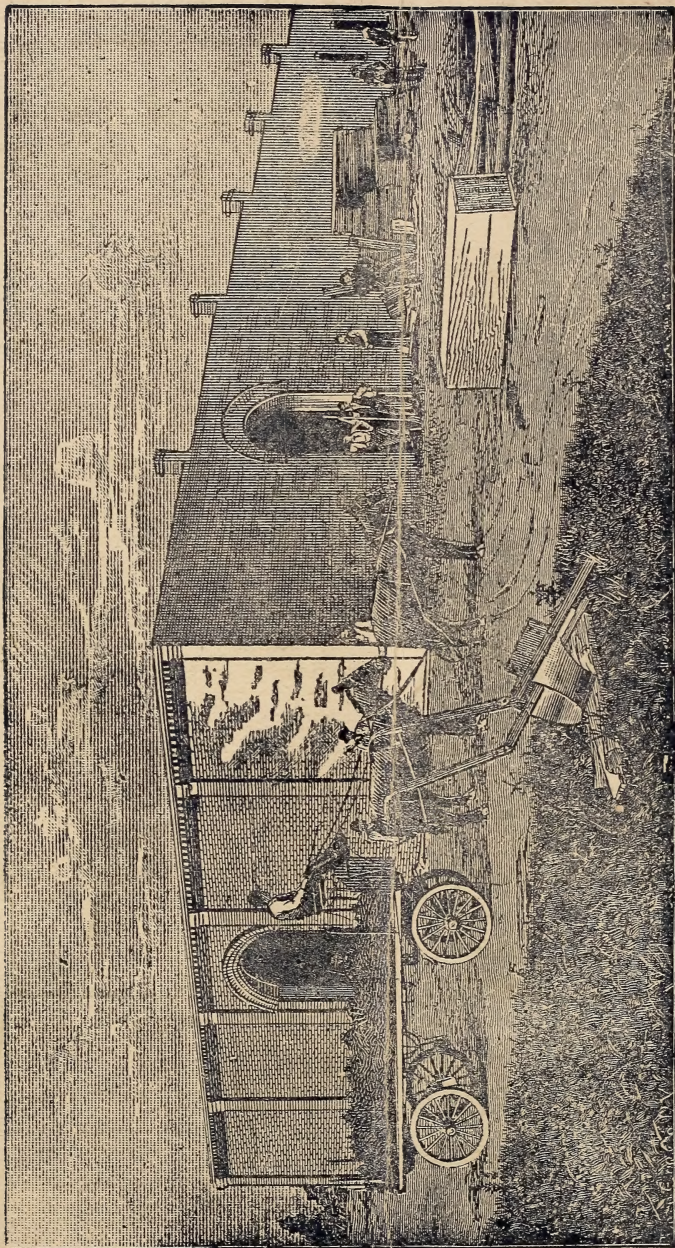
All orders requiring additional stock stored should be sent **early**, to enable us to add such to regular stock stored. We have many open winter days for additions.

Customers can order at any time between October and May, and shipments can be made without any danger to any point south of the fortieth parallel in winter (except January) from our storage house of such stock as we have in storage.

A List of Stock in Storage will be sent to Applicants after Dec. 20th of each year.

We clip the following from editorial correspondence in the *Prairie Farmer* (Orange Judd, Editor,) Chicago, June 26, 1886, relative to reports on exhibits at the 11th annual meeting of the Nurserymen, Seedsmen and Florists, held at Washington, D. C., June 16 to 20th, 1886. "J. B. Wild & Bros., Sarcovie, Mo., exhibited a lot of trees and plants kept in Cool Storage up to June 10, having been placed there in November last, without moss, sand or soil; and trees being corded up in fine condition, the plan making it possible to extend shipping season much longer than usual." We Pack in Moss and Paper Line all boxes or cases for distant winter shipments.

NOTE.—*Tritoma Uvaria* (pp. 55) needs slight covering in winter.



OUR COOL STORAGE BUILDING.

A frost-proof brick block 80x120 feet.—Storage capacity for over 20 car-loads of trees, etc., for Winter and Spring shipments. In order to keep pace with our rapidly increased trade, we have erected this building, and claim for it the best adapted storage and packing house in the west for handling of Nursery Stock for Winter and Spring shipments.

At the Tenth Annual Nurserymen's Convention in Chicago on June 17th to 20th, and at Washington, D. C., June 16th to 20th, 1886, we represented Peach and Apple, Peach in dormant bud and Forest Tree Seedlings that had been placed in storage during December and were in fine condition for planting, and so pronounced by all the nurserymen who examined them there.